

# FINAL PROJECT GUIDE BOOK



**Program Studi Statistika**

**Fakultas Matematika dan Ilmu Pengetahuan Alam**

**UNIVERSITAS ISLAM INDONESIA**

**Final Project Guidebook**  
**Statistics Study Program**  
**Faculty of Mathematics and Natural Sciences**  
**Universitas Islam Indonesia**

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**Final Project Guidebook of Statistics Study Program  
Faculty of Mathematics and Natural Sciences  
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قُلْ لَوْ كَانَ الْبَحْرُ مِدَادًا لَكَلِمَتِ رَبِّي لَنَفِدَ الْبَحْرُ قَبْلَ أَنْ تَنفَدَ كَلِمَتُ رَبِّي وَلَوْ جِئْنَا بِمِثْلِهِ مَدَدًا

*Say (Muhammad), "If the sea were to become ink to record the words of my Lord, indeed the sea would be all used up before the words of my Lord are exhausted, and it would be the same even if We were to bring an equal amount of ink"*

*Q.S. Al-Kahfi 109*

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## PREFACE

*Assalamu'alaikum wr.wb.*

*Alhamdulillah* the guidebook for the implementation and preparation of the Final Project can be published. The Final Project is a stage that students must take as one of the requirements for graduating as a Bachelor of Science in Statistics.

The UII Statistics Study Program's vision is to become a leading study program in producing data analysts with integrity and enthusiasm and that can advance society. Meanwhile, the missions of the UII Statistics Study Program are:

1. Incorporating Islamic values into a statistical way of thinking (*Dakwah Islamiyah*).
2. Developing teaching and learning activities with international standards (education).
3. Carrying out and assisting quality research in the field of statistics to solve human problems (research).
4. Applying skills and statistically thinking for the benefit of the people (community service).

As an effort to support the realization of visions and missions of the Statistics Study Program above, every prospective Statistics graduate needs to be provided with training in researching, writing, presenting, and reporting the results of observations or research systematically by applying scientific thinking patterns, one of which is expected to be achieved through the Final Project. The publication of this guidebook aims to provide guidance, reference, and limits for students in implementing and compiling the Final Project reports. In general, this guidebook comprises general requirements, implementation guidelines, report systems, writing systems, seminar guidelines, and assessment provisions commonly used in the academic world.

Hopefully, this guidebook is useful for both students and supervisors. We thank all parties who worked hard to prepare, collect ideas, write, proofread, and improve this guidebook so that it can be published.

*Wassalamu'alaikum wr.wb.*

Yogyakarta, August 2020  
Sincerely,

**Authors**

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# **CHAPTER I**

## **GENERAL REQUIREMENTS OF THE FINAL PROJECT**

### **1.1. The Final Project**

Final Project (*Tugas Akhir*/TA) or undergraduate thesis is a scientific paper written by students at the end of their study at the Statistics Study Program, Faculty of Mathematics and Natural Sciences, Universitas Islam Indonesia (FMIPA-UII). It is one of the tasks or requirements that students must fulfill to earn a Bachelor of Science (S1) prepared based on the research conducted by students under the guidance of supervisors.

Final Project shows the ability of students in terms of:

- a. Observing, digging, and exploring a particular problem.
- b. Applying an appropriate method to discuss a problem that has been chosen.
- c. Writing the results of the research methodologically, logically, and systematically.

#### **1.1.1. Requirements and Procedures of the Final Project**

Requirements for Final Project are:

- a. Students have taken a minimum of 110 credits,
- b. Students have taken Research Methodology courses,
- c. Students are taking or have taken Internship courses, and
- d. Final Project is listed on the Semester Academic Plan (*Rencana Akademik Semester*/RAS) card in each semester.

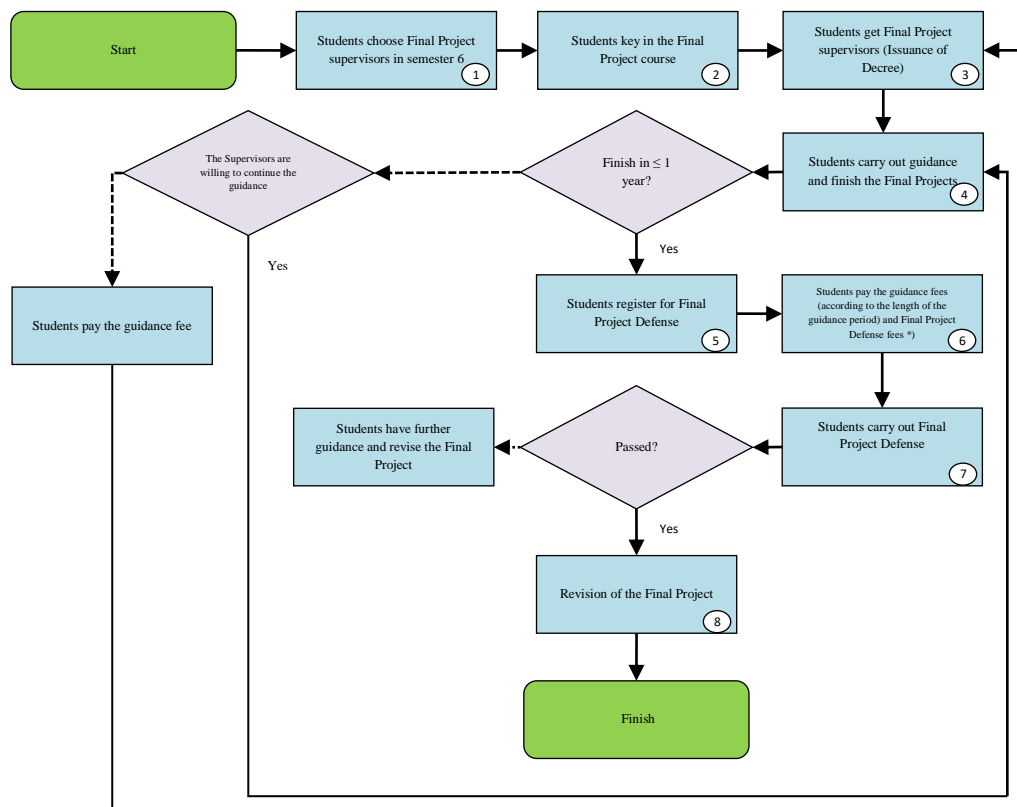
In order to efficiently complete the Final Project, students will be assigned supervisors when they are in their sixth semester. They fill out a form to select the topic and their desired Final Project supervisors. The Study Program determines the supervisors based on this form, announces the name of the supervisor along with the name of their supervised students, and proposes a Supervisor Decree. The decree will be issued in the semester in which the students carry out the Final Project key-in. The Supervisor Decree is valid for one year.

The steps for implementing the Final Project are as follows:

- 1) Students choose their Final Project supervisors in semester 6. The Study Program will determine their supervisors based on their choices. The supervisor for each student will be announced at the Comprehensive Examination and Final Project socialization that will be held in the first week of the odd semester of each new academic year.
- 2) Students key in the Final Project course in the desired semester.
- 3) Students get Final Project supervisors. The Final Project Supervisor Decree will be issued only for students who have keyed the Final Project course in. This decree is valid for 1 year from the date of decree stipulation.
- 4) Students consult with their supervisors and complete the Final Project report within a maximum of 1 year. As evidence of guidance, students must take the Final Project guidance card in the Academic Division of Faculty of Mathematics and Natural Sciences, UII. They must bring this card every time they have consultation sessions with their supervisors.
- 5) If the final project guidance process lasts for more than one year, students are required to consult their supervisors whether they are still willing to continue the guidance or not. If the supervisors are willing to continue, the students will complete the Final Project with the same supervisors. However, if they are not willing to continue the guidance, students are responsible for paying a tuition fee of IDR 350,000. Students then submit the payment receipt to the study program staff as a condition for obtaining new supervisors. After getting new supervisors, they can proceed with their Final Assignment reports.
- 6) Students register for the Final Project Defense after the supervisors approving their Final Project reports. They are required to pay a guidance fee of (length of guidance period (years)  $\times$  IDR 350,000) and a Final Project Defense fee of IDR 450,000. Other requirements for the registration of the Final Project defense will be discussed in the next section.
- 7) After students pass the Final Project Defense, they are required to revise their Final Project reports based on the suggestions and criticisms from the board of examiners.

8) If students do not pass the Final Project Defense, they will have further consultations with their supervisors and need to revise the Final Project scripts. After the revision, students re-register for the Final Project defense by paying a Final Project defense fee of IDR 450,000. Next step is as stated in step 7).

In brief, the steps for completing the Final Project can be illustrated in the following flowchart:



**Gambar 1.1. Final Project Implementation Flowchart**

Further information related to the Final Project completion process are as follows:

- a) If students key in their Final Projects in semester 8, then they are only allowed to conduct thesis guidance in semester 8, even though the announcement of the supervisors is in semester 7.
- b) If students complete the thesis in more than one year, but less than two years and with the same supervisors, the fee to be paid when registering for the Final Project defense is  $450,000 + 350,000 + 350,000 = \text{IDR } 1,150,000$ . If the undergraduate thesis is completed in more than two years but less than 3 years (with the same supervisors), the fee to be paid is  $450,000 + 350,000 + 350,000 + 350,000 = \text{IDR } 1,500,000$ .
- c) If the students do not pass the Final Project Defense and wish to register again, they need to pay IDR 450,000.
- d) If the supervisors are not willing to continue the guidance after the one-year guidance period, the Department/Study Program will provide new Final Project supervisors. The requirement to get new supervisors is to pay a guidance fee of IDR 350,000. The payment receipts are then submitted to the study program staff.

### **1.1.2. Topic and Category of the Final Project**

#### **a. Selection of topics**

Students chose research topics according to their interests and abilities without setting aside the quality of the research. In selecting the research topics, students can consult with their supervisors appointed by the Statistics Study Program, Faculty of Mathematics and Natural Sciences, UII.

#### **b. Topic limitation**

The scope of the research topics should be adjusted according to the Final Project time allocation, which is 2 (two) semesters.

#### **c. Project Participation**

Supposing that students conduct their research under a project or other research, inside or outside the Statistics Study Program, both students and their supervisors must report it to the Head of the Study Program before conducting

the research. Then, the Study Program will issue a Letter of Assignment for the students' research.

There are two categories of Final Project in the Statistics Study Program, Faculty of Mathematics and Natural Sciences UII. These categories are:

**a. Theoretical Final Project**

A theoretical Final Project examines and discusses the theories studied in the Statistics Study Program. The discussion method can be in the form of formula verification or derivation, the creation of macro computer programs, or simulation studies based on certain computer software.

Moreover, a theoretical Final Project refers to the theoretical topics in textbooks and journals, be it Statistics, Mathematics, Computers, Economics journals, or other journals that discuss theories related to Statistics. English journals are more preferred, but with **certain considerations** it is also possible to use journals in Indonesian. Furthermore, it refers to theoretical topics in proceedings or collections of national and international seminar papers.

**b. Applied Final Project**

The use of an applied approach in the Final Project seeks to examine and solve the real problem in the working world using the appropriate statistical methods. This type of Final Project allows students to obtain data from:

**Primary data**

Students design, create, and carry out their research, either in the laboratory or outside the laboratory.

**Secondary Data**

Students do not need to conduct their own research, but they directly take the research or writings results of other researchers, either not yet published or have been published. As for research results that have not been published, students must ask for permission from the relevant researchers/team leaders/agencies conducting the research. If the data and/or research method comes from the previous research, the students must state the differences between their research and the earlier research that become their references.

## **1.2.Guidance of the Final Project**

Final Project supervisors are permanent and/or non-permanent lecturers given a mandate by the Faculty upon the Study Program's proposal to guide students who take Final Projects. One or two supervisors will supervise a student who is taking the Final Project. Students can propose supervisor candidates with the following conditions:

- a. The main supervisor is at least a lecturer with the position of Assistant Professor and a minimum of a master's degree unless there is other consideration from the Head of the Study Program.
- b. The secondary supervisor is at least a Lecturer with a master's degree. This supervisor is optional. Students have the right to determine whether they wish to have another supervisor besides their first supervisor or not.
- c. If there are two supervisors, the main supervisor must be a lecturer in the Statistics Study Program, Faculty of Mathematics and Natural Sciences, UII.

### **1.2.1. Authorities and Responsibilities of Supervisors**

The main supervisor and secondary supervisor have the following authorities and responsibilities:

- a. Planning and scheduling the guidance and announcing the schedule after receiving the Guidance Decree.
- b. Guiding students in determining the topic of the problem to be worked on according to the students' interests and abilities.
- c. Providing direction on how to obtain information and research references.
- d. Providing guidance on data type and completeness, data collection, data analysis, and research result presentation.
- e. Providing guidance on the method types or offering several alternative methods for solving problems so that students can determine the theoretical framework to base their research concepts.
- f. Evaluating the information obtained and checking the data processing results that have been done by students.
- g. Evaluating the appropriateness of the problem-solving method approach that the students have chosen.

- h. Checking the suitability of the Final Project writing systems to the systematic writings which have been explained in the Final Project Guidebook.
- i. Reporting to the Head of the Study Program if they include their supervised students in a research project that is being carried out.
- j. Giving approval to students for the Final Project Defense if the content and writing of the Final Projects have been declared eligible for examination.
- k. Giving an assessment during the guidance process to students whose Final Project reports have been checked and approved for examination. The assessment is conducted according to the assessment form and submit the assessment results to the academic department.
- l. Providing guidance and alternative problem-solving in terms of improvements after the Final Project Defense.
- m. Checking and ratifying the title and abstract in English (after the Final Project defense).
- n. Ratifying the Final Project book (thesis) after the revision (if there is a revision).

### **1.2.2. Guidance Stages**

The material and follow-up plan for guidance during the Final Project are documented in the Final Project guidance card. Students are always required to bring the guidance card then ask for progress information and supervisors' signature when they have consultation sessions.

The stages and process of guidance are stated in the authorities and responsibilities of the supervisors. These stages are generally divided into three, namely:

#### **a. Before the Final Project preparation**

Prior to the preparation of the Final Project, the supervisors are obliged to provide preliminary guidance, including guidance on selecting and determining the topic of the problems, obtaining references and/or research designs, and proposal making (if needed).

#### **b. During the Final Project preparation**

This guidance is conducted when students begin to express their ideas and thoughts embodied in the final project books (thesis). It comprises guidance on the selection of problem-solving methods, evaluation and follow-up on information and discussion results, and the Final Project's approval to be presented in Final Project defense.

c. After the Final Project Defense

This guidance is conducted based on the results of the Final Project defense. This guidance ends with the ratification of the title and abstract in English and the ratification of the Final Project that have been duplicated and bound.

### **1.2.3. Guidance Process Deadline**

In accordance with the Final Project deadline's general requirements, the guidance process is valid for 1 (one) year from the issuance date of the Supervisor Decree. If students cannot complete the Final Projects until the deadline, they consult their supervisors whether they are still willing to continue the guidance or not. If the supervisors are willing to proceed with the guidance, the students will complete the Final Project with the same supervisors. However, if they are not willing to continue, students will be given new Final Project supervisors after paying the tuition fee.

### **1.3.The Right of Authorship**

The right of authorship is the copyright of scientific works. Final Project authorship rights are determined as follows:

1. If all or part of the student' Final Project is published as a newspaper article, book, scientific paper in a magazine or for a seminar, symposium, or congress, the name of the student is listed as the first author. Meanwhile, supervisor 1 and supervisor 2 are respectively written as the second and third authors.
2. If supervisor 1 uses the research data of the supervised student to be processed differently, more broadly or more deeply into books, articles, or scientific papers in magazines, seminars, symposiums, or congresses, then the student is



listed as the second author. Meanwhile, the name of supervisor 2 is the third author.

3. If supervisor 2 uses the data as in number 2, then supervisor 1 becomes the third author.
4. If supervisors 1 and 2 use the data together as in number 2, then the name of the student is listed as the third author.

## **CHAPTER II**

### **FINAL PROJECT WRITING SYSTEM**

The systematic writing for the Final Project preparation in the Statistics Study Program consists of three parts: first, main, and final. As mentioned in sub-chapter 1.1.2., there are two categories of Final Project, namely the theoretical category and applied category. The systematic writing for the arrangement of the first and last section is the same, while it is different for the main section.

#### **2.1. First Section**

The first section of the Final Project includes the cover, title, supervisor approval sheet, ratification sheet, preface, table of contents, list of tables (if any), list of appendices (if any), statement sheet, and abstract.

##### **2.1.1. Cover**

###### **i. Front Cover**

It is the outermost page that is immediately noticed. This page contains the complete title of the Final Project, including the Case Study (if any), the phrase "UNDERGRADUATE THESIS", the UII logo, student's name and number, name of the study program, faculty, university, place, and graduation year.

###### **ii. Spine**

The phrase "Undergraduate Thesis," title of the Final Project, students' name and number, UII logo, and graduation year are printed on the spine.

##### **2.1.2. Title Page and the Specifications**

It is the first page of the Final Project book. Its content is almost the same as the cover. The difference lies in the function statement, "Presented as Partial Fulfillment of the Requirement of Bachelor's Degree in Statistics Study Program," which is written between the Final Project title and the UII logo.

### **2.1.3. Approval Sheet of the Final Project Supervisors**

This page contains information that the supervisors have reviewed and approved the entire contents of the Final Project. Furthermore, the Final Project along with the case study, student's name and number, and a statement of approval from the supervisors are stated on this page.

### **2.1.4. Ratification Sheet**

This page contains the title of the Final Project and its case study, student's name and number, Final Project Defense date, the examiners' name and signature, and the dean ratification. This page is printed after completing the Final Project defense.

### **2.1.5. Preface**

The preface generally contains a brief description of the purpose of Final Project preparation and gratitude that the Final Project has been completed. In addition, it can also include gratitude to all parties who have contributed and assisted in carrying out the research both morally and materially. The preface does not contain scientific matters. Furthermore, codes, pictures, impolite sentences are not allowed to be written on this page.

### **2.1.6. Table of Contents**

The table of contents provides comprehensive information about the contents of the Final Project, starting from the title page to the appendix completed with the page numbers. The elements that can be included in the table of contents are the title page, approval sheet of the Final Project supervisors, ratification sheet, preface, table of contents, list of tables (if any), list of figures (if any), list of appendices (if any), statement sheet, *intisari*, abstract, main section of the Final Project (all chapter titles, subchapters, and sub-subchapters), bibliography, summary of the Final Project, and appendix.

#### **2.1.7. List of Tables, Figures, dan Appendices**

In general, they contain table numbers; table titles and their pages; figure numbers, figure titles and their pages; as well as appendices numbers, appendices names, and their pages. These lists are expected to ease the readers in finding out the information in the Final Project book quickly and accurately.

#### **2.1.8. Statement Sheet**

This page contains a statement that the Final Project written by a student has never been submitted before in other colleges. It also confirms that no works or opinions have been written or published by other people, except those referred to in the Final Project book and mentioned in the bibliography.

#### **2.1.9. *Intisari***

This section presents the core of the Final Project, including the main problem being studied, the scope, time and place of the research, the method used, the results obtained, the main conclusions and suggestions (if any), and at least three keywords. Keywords are terms that the author considers important. *Intisari* is written in Indonesian Language.

#### **2.1.10. Abstract**

This section presents the core of the Final Project. However, it is written in English, including the keywords.

### **2.2. Main Section**

In general, the Final Project report is arranged according to chapters, subchapters, and sub-subchapters to form a complete, systematic, and standardized report. As mentioned above, the main part will be differentiated according to the Final Project category.

### **2.2.1. Main Section for Theoretical Final Project**

The main section of the theoretical Final Project contains elements, namely introduction, theoretical study, discussion, and closing.

#### **(I) CHAPTER I INTRODUCTION**

This chapter presents:

##### **a. Background**

This section describes several reasons underlying the importance of the theories that will be studied to be explored in more depth. It also states other things that make researchers interested in discussing the theory. This section can also contain reasons such as new things or differences in analysis or differences in approaches (for example computation) that will be examined in theory.

##### **b. Problem Formulation**

The formulation of the problem related to the theories that will be studied is stated in this section. The formulation of the problem should be written briefly, concisely, clearly, and easily understood.

##### **c. Problem Limitations**

This section describes the limitations of the problem toward the theories that will be studied. The purpose of limiting the problems is to prevent the discussion from being too broad or wide.

##### **d. Types of Research and Methods of Analysis**

This section briefly describes the category of the Final Project, the methods used, for example in the form of proofing/deriving the formulas (mathematically) or by simulation study methods (computationally). Besides, this section states a brief description of the results the researchers wish to achieve.

##### **e. Research Objectives**

This section contains a brief statement regarding the objectives of conducting the research. The objective itself is to explain the theory or prove certain theories, can be mathematical or computational.

## **(II) CHAPTER II THEORETICAL REVIEW**

This chapter provides a review of various previous studies and/or publications or reviews of publications related to the problem being studied. It is important to describe the results obtained in the previous research or the latest developments and applications of the theory being studied.

## **(III) CHAPTER III DISCUSSION**

This section describes the development of the theories after being examined or can contain supporting proof that the theories being studied become easier to understand, more meaningful, or useful. The proof is not always mathematical but can be computational in the proof sense.

## **(IV) CHAPTER IV CONCLUSION**

This is the final chapter of the Theoretical Final Project. This chapter contains the research results' formulation. In this final chapter, opportunities for improvement or follow-up plans may still be investigated in more depth in relation to the results obtained.

### **2.2.2. Main Section for Applied Final Project**

The applied Final Project's core includes several chapters: introduction, literature review (if any), theoretical framework, research methodology, results and discussion, and conclusions. In the absence of a literature review, the systematics and writing of chapters will automatically adjust.

## **(I) CHAPTER I INTRODUCTION**

The introductory subchapter of the Final Project fallen under applied category is almost the same as the Theoretical Final Project, which clearly describes the following:

### **a. Background**

This section describes some reasons underlying the importance of raising the problem, or it can be in the form of new or different analysis applied to the problem to be studied. If there are any, it also explains what made the researcher interested in researching the problem.

b. Problem Formulation

This section describes the problems to be formulated concerning the theory to be studied. The problem formulation should be written briefly, concisely, clearly, and intelligible.

c. Problem Limitation

This section specifies the limitations of the problem's scope to be analyzed using statistical methods so that the analysis to be carried out is not too broad.

f. Types of Research and Methods of Analysis

This section briefly defines Final Project types according to the selected category, and also briefly writes the method to be used and a brief description of the results that the researcher wants to achieve.

d. Research Objectives

This section explains the objectives to be achieved in research. It can explain the clarity of answering to a problem or the clarity of applying a method, supported by computational processing results.

**(II) CHAPTER II LITERATURE REVIEW**

It describes research or publication, completed with author and year of publication, related to the study problem. In this section, it is essential to write briefly, concisely, and clearly, embracing the aspects being studied, the research methods and conditions, and the results that have been obtained by previous researchers. Besides, it also explains the advantages or other things from the research being worked on, which make the research different from the previous research.

**(III) CHAPTER III THEORETICAL FRAMEWORK**

The theoretical framework describes the statistical theories that are relevant to the problem to be solved. It should be noted that this section contains only theories that are used to solve problems.

#### **(IV) CHAPTER IV RESEARCH METHODOLOGY**

In general, the research methodology includes the following elements:

a. Research population

Describe the population to be studied and the population size (if known).

b. Place and time of research

It describes the research place, which can be in the form of a laboratory, region, area, or specific agency. Meanwhile, the time is the research period, the period for data collection, and the actual period for the data to be used (if necessary).

c. Research variables

It describes all the variables used, including their magnitudes and the notation used for each variable.

d. Sampling technique

This section is described systematically and logically, starting from the method used as a list of calculations to determine the sample size and calculation results. It is then followed by a detailed description of the sampling technique used, and the sample elements obtained from the application of the sampling technique.

e. Tools and ways of organizing data

This section contains a detailed description of the research implementation sequence, starting from the tools used to collect data, how to get the data, and how to document or recap the data.

#### **(V) CHAPTER V RESULTS AND DISCUSSION**

This chapter is described in detail to answer or solve each problem formulation. Reviews of problems and how to answer problems either based on manual calculations (if needed) or computer output analysis must be described in detail and systematic manner. Each step or stage that corresponds to the method/workflow of the method used must be explained in detail to a statement about the results obtained for each problem formulation.



## **(VI) CHAPTER VI CONCLUSION**

This chapter contains a brief formulation of the research results obtained following the problem formulation. It can also suggest opportunities for improvement or follow-up that may be investigated further concerning the obtained results.

### **2.3. Last Section**

This is the end of the Final Project that is not marked by a chapter title, but the page numbering continues the page numbering on the previous page. The final part of the Final Project includes a bibliography, summary/Final Project paper, and appendix.

#### **2.3.1. Bibliography**

Books and/or research results and/or scientific publications included in the bibliography are only references that are referred to. The bibliography writing includes the author's name, year, the title of the article, publisher, the publication city, and the page.

#### **2.3.2. Final Project Summary**

The final Project summary is a short writing about the contents of the Final Project in the form of a paper which includes the title, author's name, abstract, introduction, literature review, research/analysis methods, discussion of conclusions and suggestions results, bibliography, and appendix (if necessary).

#### **2.3.3. Appendix**

The appendix section provides information that is considered necessary for the Final Project, but it can disturb the reading fluency when they are listed in the Final Project's main section. The examples are images, computer programs, or data processing with computers, laws, decrees, other regulations, statistical tests samples, and hypotheses.

## **CHAPTER III**

### **PROCEDURES FOR WRITING THE FINAL PROJECT REPORT**

#### **3.1. Material and Size**

Materials and size include text, cover, cover color, writing on the cover, and size

a. Scripts

Scripts are printed on 70gram A4 size HVS paper (21cmx28cm) and only on one side of paper.

b. Front Cover

Covers are made of cardboard or similar and coated with plastic (laminating). The writing is printed in gold ink.

c. Cover Color

The cover color is navy.

d. Size

The size of the script is quarto (A4).

#### **3.2. Language**

a. The language used

The language used is standard Indonesian following the Spelling System General Manual (*Pedoman Umum Ejaan Bahasa Indonesia/PUEBI*), link <https://puebi.readthedocs.io/en/latest/>

b. The sentence forms

The material's presentation is described in complete sentences (there are subjects, predicates, objects, and information added). Sentences may not present the first person (I or we). On the contrary, they should be in the form of a passive voice. Hence, the word "author" replaces the word "I" in the acknowledgments.

c. Terms

The terms used are Indonesian terms or foreign terms have been translated into Indonesian. If it has to use foreign terms, then the writing must be underlined or italicized and comply with the principles.

d. Conjunctions

For example, the word "then," "so," "while" may not be used at the beginning of a sentence.

e. The number that starts a sentence must be spelled, for example, five people.

f. Symbols or formulas must not be at the beginning of the sentence.

### **3.3. Typing**

#### **3.3.1. Script Writing**

Some important things to note in script writing are as follows:

i. Margin

The typing borders are 4 cm from the left and 3 cm from the top, the right, and the bottom sides.

ii. Font type and size

The Final Project script is typed in Times New Roman font, size 12.

iii. Alignment and how to split words

The typing of the Final Project is aligned left and right. It is printed on only one side of the page (not back and forth). It must follow the Indonesian Spelling System General to split a word, link <https://puebi.readthedocs.io/en/latest/> with some notes:

- a. The name is not separated, and
- b. Leaving no suffixes (word endings) or only one syllable at the beginning of the next line.

iv. Chapter titles writing

The chapter title is written symmetrically (center), using capital letters and bold with a size of 14 pt, and a margin of 3 cm from the top side without ending with a full-stop. Chapter numbering uses Roman type (I, II, III, etc.).

v. Subchapter titles writing

The writing for each subchapter is written in Arabic numerals (1.1., 1.2., 1.3., etc.), and the title is in bold without ending with a full stop. All words start with a capital letter, except for conjunctions and prepositions. The first sentence after the title of the chapter begins with a new paragraph. Subchapter title is written in a single space if it is more than one line.

vi. Sub-subchapter titles writing

Sub-subchapter writing uses Arabic numerals (1.1.1., 1.1.2., 1.1.3.,). Sub-subchapter titles are typed starting from the left border and in bold. Only the first word begins with a capital letter, without ending with a full stop. If there is a section or part description, lowercase letters (a, b, c) are used and written in left-align.

vii. Paragraph

The beginning of the paragraph is typed one tab (1 cm) from the left margin of typing. If there is a subchapter or sub-subchapter, then the paragraph's beginning is typed accordingly.

viii. Line spacing

- a. All Final Project parts are typed in 1.5 spaces except for the summary and the abstract that must be single-spaced. Title of figure, table, bibliography, and appendix, and accompanying information are typed in single-space (1 space).
- b. The space between the end of the subchapter text and the text is 1.5 spaces. Besides, the space of the subchapter from the beginning of the text is a 1.5 space. At the same time, the space between paragraphs is a double space.

ix. Page numbering

The first section of the Final Project is numbered with small Roman numerals (i, ii, iii, etc.), while the main and last section of the Final Project are in Arabic numerals (1, 2, etc.). The page numbers are placed at the bottom center.

### **3.3.2. Bibliography Writing**

As a scientific paper, Final Project must be completed with references to information sources to corroborate written statements. The information sources are compiled in a reference list entitled Bibliography and placed after the Closing Chapter. The Bibliography contains sources of information that the author refers to in the process of compiling the Final Project. The Bibliography is typed in 1.5 space.

The format of bibliography writing uses APA 6th Edition rules. APA stands for the American Psychological Association. APA Styles is a form of a citation issued by the APA organization, especially for the psychological and social fields. Some of the features of APA Styles' citation style are:

1. Bibliography sorted alphabetically based on Author Last Name or Title if there is no author.
  2. The author's first name is written with the initials.
  3. If there is the same author in the bibliography, then it is written orderly from the oldest year.
  4. It can be added letters a, b, c after the year.
- a. Source of information

Sources of the information listed in the Bibliography can be:

- i. The whole book.
- ii. Chapters or sections of a book.
- iii. Monograph.
- iv. Papers in magazines or originating from a symposium or other scientific conference.
- v. Reports or texts published by an official department or institution.
- vi. Electronic information.
- vii. Scripts that have not been published, but are being prepared for printing, can be included by affixing a statement (in print) at the end of the reference source.

Sources that are not published or originating from personal communication are not listed in the Bibliography. Supposing that this type of

information is used, the reference in the Final Project text is stated as follows: the description is indicated in square brackets at the end of the section that represents the information: [Muthia, personal communication 29 July 2004 and a recording of the conversation which needs to be kept as evidence].

b. The layout of the bibliography

The title of REFERENCES is typed in bold and symmetrical on the upper border. The first bibliography is typed 1.5 spaces below it, on the left edge of the typing field.

c. Inclusion of the author's name

In the Bibliography, all authors of a paper or book must be included, not replaced by et al. Meanwhile, the author's title (Doctor, Professor, Haji, Hajjah, Raden, etc.) is omitted.

The following are examples of writing a bibliography based on APA Styles.

**Table 3.1. Citation Rules**

Source type	Quotations/In-text Citations	Reference
Online Journal	<p>(Kim, 2010, p. 311) (Kim, Mirusmonov, Lee, 2010, p. 311) first quote</p> <p>(Kim et al, 2010, p.311) next quote</p>	<p><b>Author. (Year). Title of the Article. Journal Name. Volume. page.Doi:xxx.xxx.</b></p> <p>Author. (Year). Title of the Article. Journal Name. Volume. Page. Retrieved from URL.</p> <p>Kim, C., Mirusmonov, M., Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment. <i>Computers in Human Behavior</i>, 26, 310-322. Doi:10.1016/j.chb.2009.10.013.</p> <p>Kim, C., Mirusmonov, M., Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment.<i>Computers in Human Behavior</i>. 26.310-322 Retrieved from</p>

		<a href="http://www.sciencedirect.com">http://www.sciencedirect.com</a> .
Online Magazine	(Barile, 2011)	<p><b>Author. (Year, month-date). Title of the article. Magazine Name.</b>  <b>Retrieved from URL.</b></p> <p>Barile, L. (2011, April). Mobile technologies for libraries. <i>C&amp;RL News</i>. Retrieved from  <a href="http://crln.acrl.org/content/72/4/222.full">http://crln.acrl.org/content/72/4/222.full</a></p>
Online Newspaper	(Hakim, 2016)	<p><b>Author. (Year, month-date). Title of the article. Newspaper Name.</b>  <b>Retrieved from URL.</b></p> <p>Hakim, C.. (2016, June 16). Kode Morse THR. <i>Kompas Online</i>. Retrieved from  <a href="http://www.kompas.com">http://www.kompas.com</a></p>

Book (Author Publisher ) Sections in Books	(American Psychological Association [APA], 2010)  (APA, 2010)  (Yuan, 1998)	<b>Author. (Year). Book's title (edition). City of publication: Publisher</b>  American Psychological Association. (2010). Publication manual of the APA Style (6th ed.). Washington, DC: Author.  Yuan, P. (1998). Shanghai Jahwa: Liushen Shower Cream (A). In Kumar, S.R..(Ed). <i>Case Studies in Marketing Management</i> (pp. 1-11) . Dehli: Pearson.
Book (without an author)		<b>Book Title (edition). (Year). City: Publisher</b>  (2007). Springfield, M Webster.
Online Books (author organizations, etc.)	(Kumar, 2012)	<b>Author. (Year). Book Title (edition). City: Publisher. Retrieved from URL.</b>  Kumat, S.R.. (2012). Case studies in Marketing Management.. Dehli: Pearson. Retrieved from <a href="http://books.google.com/books">http://books.google.com/books</a>  Biro Pusat Statistik. (2013). Statistik Indonesia 2010. Jakarta, DKI: Penerbit. Retrieved from <a href="http://www.bps.go.id/books/file/12345.pdf">http://www.bps.go.id/books/file/12345. pdf</a>
		<b>Author. (Year). Thesis/dissertation title (notes).Available from database name. (record number).</b> Young, R.F. (2007). Crossing boundaries in urban ecology (doctoral dissertation). Tersedia dari Proquest Dissertation & Theses Database. (UMI No. 327681).



Online Encyclopedia		<p><b>Entry Title. (Year). In Encyclopedia Name. Retrieved ..., from URL</b></p> <p>Digital Divide. (2013). Dalam Encyclopedia Britannica. Retrieved 6 May 2013, from <a href="http://search.eb.com">http://search.eb.com</a></p>
Online Government Publications		<p><b>Institution. (Year). Publication title (publication number). City: Publisher. Retrieved from URL</b></p> <p>Kementrian Pendidikan dan Kebudayaan RI. (2011). Peraturan Mendiknas tentang Satuan Pengawasan Intern (Permendiknas Nomor 47 tahun 2011). Jakarta, DKI: Penerbit. Retrieved from <a href="http://spi.um.ac.id/uploads/...SPI.pdf">http://spi.um.ac.id/uploads/...SPI.pdf</a></p>
Documents from university or section websites		<p><b>Author. (Year). Online document title. Retrieved from Institution name, Web Title, URL</b></p> <p>Surachman, A. (2008). SOP Perpustakaan FEB UGM. Retrieved from Universitas Gadjah Mada, Library Website <a href="http://lib.feb.ugm.ac.id/files/sop/">http://lib.feb.ugm.ac.id/files/sop/</a></p>
Blog sites		<p><b>Author. (Year, date). Article/blog title. Message on article</b></p> <p>Surachman, A. (2013, 25 May). Akses EResources Perpustakaan Nasional RI. Article in <a href="http://arifs.blog.ugm.ac.id">http://arifs.blog.ugm.ac.id</a></p>
Professional Web		<p><b>Author. (Year of Publication). Online document title. Retrieved ..., from URL</b></p> <p>Ikatan Akuntan Indonesia. (2008). Standar Akuntansi Indonesia. Diakses 27 Mei</p>

		2013, dari <a href="http://www.iai.or.id/standar/sai.html">http://www.iai.or.id/standar/sai.html</a>
Database		Bloomberg. L.P. (2008). Return on Investment for Apple Inc 12/31/00 to 01/30/08. Diakses 21 Mei 2013, dari Bloomberg Database.
A website without specific information of the document		( <a href="http://www.nasa.go.id">http://www.nasa.go.id</a> )

### 3.3.3. Final Project Report Support Page Writing

Several supporting and complementary pages of Final Project reports are written with the following conditions:

- a. Cover page and title page with specifications

The main title is written in all capital letters and bold, in Times New Roman font size 16. If there are subtitles (for example, a case study), each word's first letter is written in capital letters, except for conjunctions and prepositions, using size 12, and placed in the middle (center). The layout and writing principles for these two pages are symmetrical.

- b. Approval Sheet of Supervisor and Ratification Sheet

The top line is written the sheet title according to the intended page using the font size of Times New Roman 14, followed by the Final Project title with size 12, Student's name and number, and the name of the supervisors and examiners using size 12.

The title is written accordingly in the top page; the font used is Times New Roman size 14. The Final Project title is written below the sheet title in Times New Roman size 12, followed by the student's name and number, the name of the supervisors and examiners .

c. Table of Contents, List of Tables, List of Figures, and Appendix List

Writing a table of contents to the maximum of sub-subchapters and completed with their pages. The list of tables, figures, and appendices contain three important contents: number, title, and page. The table/figure/appendix numbers are presented sequentially from the first chapter to the last chapter.

### 3.3.4. Final Project Summary Writing

The Final Project summary is made in the form of paper and is arranged as follows:

- a. The script must be part or all of the Final Project research results
- b. The script is written in Indonesian with an English abstract, and vice versa. Abstract or *intisari* is no more than 250 words and is followed by 3-5 keywords. The scripts are in printouts and put on the compact disk with a maximum number of 15 pages, including tables and figures.
- c. The arrangement is in the following order:
  - i. Title, name of the author, and name of the study program
  - ii. Abstract or *intisari* and keywords
  - iii. The body is written according to the writing system. The bibliography is also written following the writing system, as mentioned in sub-chapter 3.3.1. and sub-chapter 3.3.2., specifically for the typing field, it **can also** be made in the form of two columns for the page, as long as it is consistent from beginning to end.

The body of the Theoretical Final Project paper includes:

- **Introduction** contains a research background, including the literature review
- **Theoretical frameworks** have reviews of various studies and publications related to the problem under study
- **Discussion**
- **Conclusion**
- **References**

The body of the Applied Final Project paper includes:

- **Introduction** contains a research background, including a literature review
  - **Literature review**, which contains reviews of the latest research related to the study conducted
  - **Research methodology**
  - **Discussion**
  - **Conclusion**
  - **References**
- d. The paper title does not have to be the same as the title of the Final Project and should be sufficiently informative and not necessarily too long. Long titles should be organized into headlines and subheadings.
- e. The authors (without titles) are given an index (superscript) 1,2,3, and so on, followed by the study program's name. At the bottom of the title page, the student's home address and the supervisor's agency address are briefly stated.
- f. Tables and figures are written according to the writing system in sub-chapter 3.3.3. Figures must be original and precise with maximum size is 12 cm x 19 cm. Furthermore, figures are separated from the text (not pasted in the script).

## **CHAPTER IV**

### **FINAL PROJECT DEFENSE AND ASSESSMENT CRITERIA**

#### **4.1.Final Project Defense**

##### **4.1.1. The Procedure for Submitting the Final Project Defense**

- a. The students have met the administrative requirements, namely:
1. Fill in the thesis examination registration form signed by the supervisor and the Head of the Study Program.
  2. Pass the final evaluation of courses (*Tutup Teori*).
  3. Submitting 3 copies of the Final Project to the Academic Division.

4. Minimum score of CEPT (Certificate of English Proficiency Test) is 422 and it is still valid.
  5. Pass PNDI (*Pendalaman Nilai Dasar Islam*), BTAQ (*Baca Tulis Al-Qur'an*), and LKID (*Latihan Kepemimpinan Islam Dasar*).
  6. Recent photos of 4x6 cm and 3x4 cm (4 sheets each) with UII blue background.
  7. 4 copies of legalized high school diploma.
  8. 4 copies of legalized birth certificate.
  9. Thesis guidance card (at least ten times consultation with the supervisors).
  10. Show the payment slip from the bank.
  11. All of these requirements are submitted to the Academic Division of Faculty of Mathematics and Natural Science UII.
- b. The Study Program determines the Final Project Examiner Team.
  - c. The academic section makes an examiner request letter containing the day, date, time, and class for the Final Project examination, according to the Final Project defense schedule that has been prepared by the Study Program
  - d. The academic section notifies students, supervisors, and examiners about the schedule of conducting the Final Project Defense.

#### **4.1.2. Board of Examiners**

The Final Project examiner team consists of 3 (three) examiners and a **maximum** of 1 (one) examiner from outside the UII Statistics Study Program. If 2 (two) supervisors guide students, only **one** supervisor is entitled to act as examiner, preferably a supervisor with a relevant field of study. Supposing that the two supervisors have relevant fields of study, only one can be chosen. The Head of the Study Program determines the member of the examiner team.

#### **4.1.3. General Requirements for Examination**

- a. The nature of the test

Final Project defense is closed, only attended by the examiner team and the students themselves.

b. Time of the exam

Final Project defense is held for a maximum of 120 minutes, with 20 minutes for presentation and 100 minutes for question-and-answer session.

c. Code of conduct

Students are required to dress neatly (formal wear). Students are also required to bring a laptop that has been installed with supporting software for data analysis in the Final Project report.

d. Examination

Final Project defenses are carried out every semester based on a study program schedule regarding the University's academic calendar.

#### 4.2. Assessment Criteria and Components

Assessment and distribution of the Final Project final score are arranged as follows:

a. Assessment from the Supervisors (**weight 25%**)

It is a score given by the supervisors during the guidance process, which includes:

**Table 4.1. Assessment Components for the Supervisors**

No	Component	Score range
1	Research Novelty	0 - 25
2	Completion of assigned tasks	0 – 25
3	Intensity of meeting with supervisors.	0 – 25
4	Seriousness	0 – 25

If 2 (two) supervisors guide one student, each supervisor has the same right to assess the student during the guidance process. This component's final score is obtained by taking the average of each supervisor's final score.

b. Assessment during the Final Project Defense (**weight 75%**)

This score is given by the examiner team during the Final Project exam according to the assessment components as follows:

**Table 4.2. Assessment Components for the Supervisors**

No	Component	Type of Data	
		Secondary	Primary
1	Research Quality	0 – 15	0 – 20
2	Writing / grammar	0 – 20	0 – 20
3	Presentation Skills	0 – 15	0 – 15
4	Mastery of the research topic	0 – 50	0 – 45

**4.3.Final Results of Final Project Defense**

The passing of the exam is based on the score of the Final Project defense. In general, the final results of the Final Project defense can be divided into 3 (three), namely:

a. Passed without revision

What is meant by passing **without** revision is the examining team **completely accepts** the substance, writing, mastery of the material, and all matters related to the research results that have been presented by students. After completing the Final Project defense, students can directly duplicate and bind the research report according to the predetermined time.

b. Passed with revision

Passed **with** revision means the students **need to revise** some part of the Final Project, including **some** of the substance, writing, mastery of the material, and all matters related to the students' research results.

Revision process:

1. Students immediately revise the material that needs revision according to the revised notes made by each examiner.
2. Students must bring the revision notes they get after the Final Project Defense to the examiners when they deliver the revision results.
3. The maximum revision period is 3 (three) months. If until the deadline the students have not been able to complete the revision, it could result in a decrease in the final score of the Final Project or repeat exams or the research, delay in the implementation of the judgement on final course and in graduation.

c. Did not pass

Students are deemed not to pass if they **cannot maintain** the substance, material, and everything that has been described or written in a question-and-answer session with the board of examiners. If the students do not pass the Final Project examination, the students must have further guidance with the supervisors and revise the Final Project script. After revising the Final Project report, students re-register for the Final Project re-examination.

#### **4.4.Post Final Project Defense**

##### **4.4.1. Judicium**

Judicium is a medium intended to determine and validate student graduation to obtain a Bachelor of Science degree at the undergraduate level.

The academic requirements that must be met by students to be included in this judicium are:

- a. Pass the Final Project exam with a minimum score of C.
- b. Have taken a minimum of 145 credits with a minimum Cumulative Grade Point Average of 2.25.



- c. Pass the Community Development Participation (*Kuliah Kerja Nyata/KKN*) with a minimum score of C.

The administrative requirements that must be completed to attend the judicium on final study are:

- a. Fill the form of the Judicium on Final Study request completely.
- b. Cumulative Study Results that have been approved by the academic advisor and the Head of the Study Program.
- c. A copy of the Final Project's cover approved by the supervisor.
- d. *Intisari* and abstracts approved by the supervisor.
- e. Title Page in English that has been approved by the supervisor.
- f. Proof of submission of Final Project, 1 (one) copy to the library.
- g. Proof of submission of the Final Project, 1 (one) copy to Supervisor 1.
- h. Photocopy of Community Development Participation certificate.
- i. Laboratory free letter within the Faculty of Mathematics and Natural Science.
- j. Library free letter (both from Faculty and University libraries)
- k. Receipt of a Faculty Library donation from the Bank.

#### **4.4.2. Graduation**

Graduation is a ceremonial activity followed by students who have passed a certain study level, including the undergraduate level. Complete graduation requirements can be seen in the Academic Guidebook of the Universitas Islam Indonesia.

# ENTHUSIASTIC

## GENGGAM DATA KUASAI DUNIA



**Program Studi Statistika**  
Fakultas Matematika dan Ilmu Pengetahuan Alam  
UNIVERSITAS ISLAM INDONESIA