



**GUIDELINES FOR PREPARATION OF THESIS**  
**For**  
**Final Year Project**

Department of Information Technology  
Shaheed Benazir Bhutto University, Shaheed Benazir Abad

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## **GUIDELINES FOR PREPARATION OF THESIS**

### **1. INTRODUCTION**

A thesis is a document submitted in support of candidature for an academic degree or professional qualification presenting the author's research and findings. A typical thesis has a title page, an Abstract, a table of contents, a body, comprising the various chapters and a references section.

### **2. GENERAL RECOMMENDATIONS**

#### **2.1 SIZE AND QUALITY OF PAPER**

The thesis should be prepared on standard A4 size (210 mm x 297 mm) good quality white paper (at least 80 gm). The same paper should also be used for Figures, Tables, and Charts. The paper used in entire thesis should be plain without any borderline, logos, insignia, monograms etc.

#### **2.2 LANGUAGE**

The entire thesis must be written in English language. The spelling throughout the thesis be either in American or British language.

#### **2.3 TYPING AND PRINTING:**

The entire thesis must be computer typed and printed through laser printer or ink jet printer with black ink.

### **3. THESIS ORGANIZATION**

A thesis/Dissertation/project report is mainly organized into three parts.

- (i) Preliminary Pages
- (ii) Main body / text
- (iii) References

### **3. PRELIMINARY PAGES**

The following pages are to be placed in the order given below before the text of the thesis. These pages should be numbered in lower Roman numerals, consecutively, starting (i) from the title page and the numbers should be placed centrally at bottom of each page. All the pages must start with new page.

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### **3.1 TITLE PAGE**

The title of the thesis should be as concise as possible. On the title page, the title must appear in all capital letters with each line centered on the page. The month in which the thesis is submitted, e.g., May, August, or January is to be printed at the bottom of the page. The title page is not numbered, but it is counted. The Specimen of the Title page is given in Annexure.

### **3.2 CERTIFICATE PAGE**

This is the most significant for thesis submission. It must be signed by the Supervisor and Co-Supervisor (if selected). Without this the thesis will not be accepted. The Specimen of the certificate is given in Annexure.

### **3.3 DECLARATION PAGE**

This is also the most significant for thesis submission. Through the declaration the student declares that the work presented by him/her is original and belongs only to him/her. The Specimen of the Declaration is given in Annexure.

### **3.4 DEDICATION PAGE**

If a candidate desires to dedicate his / her thesis to any person or organization, it should be so stated on this page. However, the dedication should not contain any number, photograph or chart or maximum of a 100 words. The dedication should be centered on the page (horizontally and vertically). A specimen of this page is given in Annexure.

### **3.5 ACKNOWLEDGMENTS**

This section begins with the title **ACKNOWLEDGEMENTS** centered in all capital letters. This page is used to thank those persons who have been instrumental to the student in completing the degree requirements. Acknowledgement of grants and special funding received to support the research also may be made on this page. A specimen of this page is given in Annexure.

### **3.5 ABSTRACT**

The abstract should provide a succinct, descriptive account of the thesis. The abstract should not exceed 600 words and it should state the field of study, provide identified, research methodology

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adopter, scope of study, result and a very brief conclusions. A lower-case Roman numeral is used on the abstract page. A specimen of this page is given in Annexure.

### **3.5 TABLE OF CONTENTS PAGE**

The Table of Contents must include all chapter headings, the bibliography, and appendices. The headings of major sections (i.e., chapters, bibliography) are written in all capital letters. Table of Contents headings must be identical to those in the text. Page numbers listed must be right-justified and connected to the appropriate entry by a line of evenly spaced dot leaders (periods). The words TABLE OF CONTENTS must be centered on the first page only.

### **3.6 LIST OF TABLES (if tables appear in document)**

The number and heading of each table, including the page number where it appears in the text, should be provided, consecutively and chapter-wise, in this list.

### **3.7 LIST OF FIGURES (if figures appear in document)**

The number and caption of each figure, including the page number where it is located in the text, should be provided, consecutively and chapter-wise, in this list.

### **3.8 LIST OF ABBREVIATION**

This list should contain all the abbreviations used in the thesis. The abbreviations must be listed in the alphabetical order.

## **4. MAIN BODY /TEXT**

Text must be divided into chapters. Each chapter must start on a new page and should continue with sections and subsections on successive page. The sections and subsections should be given appropriate titles and numbers. The text may be written in paragraphs which should not be too long. The paragraphs should repose the continuity.

The text includes:

- (i) INTRODUCTION
  - (ii) TOOLS AND TECHNIQUES
  - (iii) DESIGN AND ARCHITECTURE OF THE SYSTEM
  - (iv) FEATURES OF THE SYSTEM
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(v) CONCLUSION AND FUTURE WORK

#### 4.1 FONT AND SPACING

The main text of thesis must be typed following font size and style.

**Main Text:**

<b>Font:</b>	Times New Roman
<b>Size:</b>	12
<b>Spacing:</b>	1.5
<b>Heading (main):</b>	14
<b>Heading (Sub):</b>	13

#### 4.2 CHAPTER, SECTIONS & SUBSECTIONS

- i. Each chapter must start on a new page and be typed continuously with sections and sub-section on successive pages. The sub sections are not indented and should not be more than four levels.
- ii. The chapter number and heading should be typed centered on the page in bold capitals. The chapter heading should be placed below the chapter number. The chapter number should be in Arabic numerals, e.g.,

### CHAPTER 4

#### RESULTS AND DISCUSSIONS

- iii. The section number and heading must be typed from the left margin in capitals in bold letters without underlining. The section number must consist of the chapter number followed by a number, both in Arabic numerals, e.g.,

#### 4.2 QUALITY ASSESSMENT OF THE APP

- iv. The sub-section numbers and headings must be typed from the left margin in bold lower case characters with the first character of the first word in capital without underlining. The sub-section must consist of the chapter number followed by section number and one additional number representing the subsection, all in Arabic numerals, e.g.,

##### 4.2.1 App Quality Rating

- v. Any further sub-section numbering, if needed, must be done with additional Arabic numerals without bold letters, e.g.,

##### 4.2.1.1 Engagement

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## 5. MARGINS

<b>Top:</b>	1 inch (25 mm) (2.5 cm)
<b>Left:</b>	1 ½ inch (38 mm) (3.8 cm)
<b>Bottom:</b>	1 inch (25 mm) (2.5 cm)
<b>Right:</b>	1 inch (25 mm) (2.5 cm)

## 6. TABLES

- i. Each table must be typed following the place where it is referred first, preferably on the same page, or if it cannot be accommodated in the remaining space on the same page then on the following page, with single, one-and a half or double line spacing as is found convenient to accommodate the table on one page within the specified margins.
- ii. A long table which cannot be accommodated on one page, even with single line spacing and / or reduced to an easily legible size may be continued on the next page under the same table number with proper indication at the bottom of the page, e.g., “continued on the next page”.
- iii. The heading of the table must be in bold lower case letters with the first character of the first word in capital without underlining. The number and heading of the table should be typed above the table itself.
- iv. All the tables belonging to each chapter must be numbered in the same way as the sections of the chapter, the first number indicating the chapter number and the second the table number in sequence, both in Arabic numerals, e.g.,

### Table 4.1: Yield stress and modulus of elasticity of ‘I’ sections

- v. If any table is referred on a page other than that where it is placed, it should be referred with its number and the page where it is placed, e.g., Table 4.1 on P.36.

## 7. FIGURES

- i. Each figure must be drawn and placed within the specified margins following the place where it is referred first, preferably on the same page, or if it cannot be accommodated in the remaining space on the same page then on the following page.
- ii. The number and caption of each figure should be typed under it with bold letters in the same way as the headings of tables described above, e.g.,

### Figure 4.1: Arrangement of reinforcement of the model tested

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- iii. If any figure is referred on a page other than that where it is placed, it should be referred with its number and the page where it is placed, e.g., Figure. 4.1 on P.43

## **8. EQUATIONS**

All equations belonging to a chapter in the text should be numbered in the same way as the figures and tables. Each equation should start on a separate line with a larger than the normal spacing between the equation and the text above and below it, e.g.,

$$Ax + By = C \qquad (4.1)$$

The equation should be referred to in the text as Eq. (4.1)

## **9. PAGINATION OF TEXT**

Lower-case Roman numerals are used to number all pages preceding the text. Although the preliminary paging begins with the title page, no number appears on that page. The page immediately following the title page is numbered with a lower- case Roman numeral. Beginning with the first page of the text, all pages are to be numbered with Arabic numerals consecutively throughout the thesis document, including the list of references. The Arabic numerals must be positioned at the bottom of the page, centered between the margins.

## **10. REFERENCES:**

- i. All the references quoted in the entire thesis must be placed at the end of the text and listed author-wise in the number format (i.e. [1]). The year of publication, in round brackets, should follow the full name(s) of the author(s). the standard method of describing the publications referred in the text should be followed. The specimens of describing various types of publications are given in Appendix-M.
- ii. The publications should be referred in the text by the last name of the first author followed by the number in square brackets.

## **11. MAXIMUM LIMIT**

The thesis should contain maximum 150 pages including the starting pages.

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## **12. SUBMISSION OF THESIS**

One copy of the draft of the thesis on an ordinary white A4 size paper should be submitted to the thesis Supervisor in a loose form/folder ring file for evaluation by the thesis examiners. After successful defense of the thesis in the thesis examination, and after incorporating the changes/corrections recommended by the thesis examiners to their satisfaction, the certificate page should be got signed by the examiners and the concerned university officers. The thesis should then be bound and submitted along-with the softcopy to the Controller of Examinations in sufficient number for distribution as under:

1. One copy to be retained by the Controller of Examinations.
2. One copy to be submitted to the library.
3. One copy to be submitted to the Dean of the concerned faculty.
4. One copy to be submitted to the Chairman of the concerned department.
5. One copy to be sent to the thesis examiner.

## **13. BINDING**

The thesis should be hard bound with front cover of dark blue color. The writing of face cover and the spine should be in golden letters.

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Submitted in fulfilment of the partial requirements for the degree of  
Bachelor of Science (Information Technology)

## **Info Visualization for Statistical Data**

Supervised by: **Mr. Mairaj Nabi Bhatti**

By:

Mr. Ali Ahmed                      15IT01

Mr. Kamran Ali                     15IT02

**Department of Information Technology**

**SHAHEED BENAZIR BHUTTO UNIVERSITY, SHAHEED  
BENAZIRABAD. 2018-19**



**TITLE OF THE THESIS**



Submitted in fulfilment of the partial requirements for the degree of

**Bachelor of Science**

**In**

**Information Technology**

A Thesis Submitted By

<b>Name</b>	<b>Roll #.</b>
Group Member (First)	Roll #. (Group Member (First))
Group Member (Second)	Roll #. (Group Member (Second))
Group Member (Third)	Roll #. (Group Member (Third))
Group Member (Fourth)	Roll #. (Group Member (Fourth))

**SUPERVISOR**

Name of Supervisor

**CO-SUPERVISOR (If Selected)**

Name of Co-Supervisor

**DEPARTMENT OF INFORMATION TECHNOLOGY  
SHAHEED BENAZIR BHUTTO UNIVERSITY, SHAHEED BENAZIRABAD**

December 2019

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## **CERTIFICATE**

*This is to certify that Mr. \_\_\_\_\_ S/o \_\_\_\_\_ Roll No. \_\_\_\_\_ Final Year student of Bachelor of Science (Information Technology) completed the compulsory requirement of Project / Thesis during session, 2015-16. Thesis “Name of the Project” submitted to the Shaheed Benazir Bhutto University, Shaheed benazirabad for the Bachelor of Science (Information Technology).*

**Name of Supervisor**

SUPERVOSIR

**Name of External Examiner**

EXTERNAL EXAMINER

**Name of Chairman**

CHAIRMAN

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## **DECLARATION**

We hereby declare that this thesis/project is a presentation of our own work except as cited in the references and that it has not been submitted anywhere for any award.

**Name (Roll #.)**

**Signature**

1. Group Member 01 (Roll #.)

2. Group Member 02 (Roll #.)

3. Group Member 03 (Roll #.)

Dated: \_\_\_\_\_

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## **DEDICATION**

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We are dedicating our whole efforts to our respected

### **“PARENTS & TEACHERS”**

Whom we are really inspired, their pure love, devotion

Natural attitude and sincerity is matter of great

Pleasure and pride for us

Their encourage and simulating morally, socially and

Academically based teachings have always been

Proved for us as a

### **“PATH TOWARDS SUCCESS”**

They have given us name, which caused our

Identification in society.

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## **ACKNOWLEDEMENT**

We thank Almighty Allah who gives us the strength and ability to think, work and deliver what we are assigned to do.

Foremost, I would like to express my sincere gratitude to my supervisor **Supervisor Name** for the continuous support of my project, for this patience, motivation, enthusiasm and immense knowledge. His guidance helped me in all the time of writing of this thesis.

I also acknowledge our chairman **Mr. Mairaj Nabi Bhatti** who guided, taught and helped us during our whole study period.

We are thankful to our Lecturer, **Mr. Umair Shaikh**, who made us able to think of completing such project, helped us from very beginning and guided throughout the project.

Group Member 01 (Roll #.)

Group Member 02 (Roll #.)

Group Member 03 (Roll #.)

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## **ABSTRACT**

Business intelligence is an emerging technology in the field of computer science, companies are moving rapidly towards the computerized system for managing their company's operation. Today the biggest concern of the companies is that how to be ahead from other companies and how to make successful decision for the future. In this regard data visualization provide a huge help to the companies to see their statistics in the form of visual objects, in this way company can better understand the position of the company and make decision accordingly. Another advantage of the data visualization is that the managerial level personals don't have much time to view the statistical data, so they prefer the graphical representation of the data. By keeping these things in mind we have designed "*Info Visualization System*" that will overcome these problems by visualizing the statistical data in graphical form.

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