**Title of the Final Year Project (FYP) should be Bold, Centralized, 14 Font Size, Times New Roman. First Letters of All Words Shall be Capital Except Prepositions**



Submitted by

**STUDENT 1 (ALL CAPS)**

**REGISTRATION #**

**STUDENT 2 (ALL CAPS)**

**REGISTRATION #**

**STUDENT 3 (ALL CAPS)**

**REGISTRATION #**

Supervised by

**SUPERVISOR’S NAME**

Department of Bioinformatics

Faculty of Computing and Information Technology

International Islamic University, Islamabad

2023

**APPROVAL CERTIFICATE**

It is to certify that this project meets the entire requirements and warrants its acceptance by the Department of Bioinformatics, International Islamic University, Islamabad for the degree of BS (Bioinformatics) for Student 1 (Reg #), Student 2 (Reg #), and Student 3 (Reg #).

**Committee Signatures:**

**Supervisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

(Supervisor’s Name)

**Project Coordinator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

()

**Head of Department: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

(Dr. Mahrosh Khalid)

Date: 24th February 2023

**DECLARATION**

We hereby declare that this undergraduate project “write the complete title of your project”, neither as a whole nor as a part thereof has been copied out from any source, wherever references have been provided. It is further declared that we have developed this undergraduate project and accompanied the report entirely on the bases of our knowledge. If any part of this undergraduate project is proved to be copied out from any source and found to be reproduced from other sources without proper acknowledgment, we will stand by the consequences, and the university will take no responsibility.

**Project Members:**

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Student 1**

Reg #

Email

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Student 2**

Reg #

Email

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Student 3**

Reg #

Email

Date: 24th February 2023

**ACKNOWLEDGMENT**

This section shall not exceed one page. You may mention any helping person, teachers, friends, family, institute who has helped you in accomplishment of your FYP. Text should be normal, 12 font size, times new roman, and justified. You may divide this section in paragraphs.

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**Abstract**

Summarize your research project or progress of your FYP in this section. It should not be more than 300 words where you will not only summarize your introduction but also your methodology and results in a couple of sentences. At the end of abstract write down minimum 6 and maximum 6 keywords separated by a comma “,”. Keywords should be very specific – those used in your studies.

**Keywords:**

Keyword1, Keyword2, Keyword3, Keyword4, Keyword5, Keyword6.

**Chapter 1: Introduction (14 Font Size, Bold)**

1. **Heading (12 Font Size, Bold)**

Headings and sub-headings should be given a number with order. In-text citations shall be provided as per (Author, Year) rule. In case of ONE author in reference, citation should be as (Author, 2006). In case of TWO authors in reference, citation should be as (Author1 and Author2, 2007). In case of THREE or MORE authors, citation should be as (Author1 *et al.,* 2013). Scientific name should be written according to binomial nomenclature rules.

* 1. **Sub-Heading**

Introduction section shall include authentic up-to-date information relevant to your topic.

* + 1. **Sub-Sub-Heading**

All the headings, sub-headings, and sub-sub-headings should be bold with 12 font size.

* 1. **Problem Statement / Hypothesis / Gap Analysis**

Clearly highlight the problem you have identified for your research. It shall be stated as a single statement / sentence and should be around 30 words. For example, “So far, it is not known whether ABC gene is helpful in mitigating abiotic stresses in plants.”

* 1. **Aim**

Clearly highlight the aim of your study as a single point or statement. For example, “To study the role of *ABC* gene in plants under abiotic stresses.”

* 1. **Objectives**

Specifically mention (1-3) objectives of your studies in bullet points. For example,

* To study the phenotype of *abc* mutants rice.
	1. **Scope of Study**

What areas / industries are influenced through this study? For instance, doing research on medicine will help the pharmaceutics for production of novel medicines.

* 1. **Impact on Society**

How can your research help / affect a common man.

**Chapter 2: Review of Literature (14 Font Size, Bold)**

1. **Heading (12 Font Size, Bold)**

Headings and sub-headings should be given a number with order. In-text citations shall be provided as per (Author, Year) rule. In case of ONE author in reference, citation should be as (Author, 2006). In case of TWO authors in reference, citation should be as (Author1 and Author2, 2007). In case of THREE or MORE authors, citation should be as (Author1 *et al.,* 2013). Scientific name should be written according to binomial nomenclature rules.

* 1. **Sub-Heading**

This section shall include authentic and relevant literature published till date.

* + 1. **Sub-Sub-Heading**

All the headings, sub-headings, and sub-sub-headings should be bold with 12 font size.

**Chapter 3: Materials and Methods (14 Font Size, Bold)**

Include all kind of tools, techniques, resources whether it be biological samples, chemicals, protocols, teachers outreach, and online resources, in this section.

1. **Heading (12 Font Size, Bold)**

Headings and sub-headings should be given a number with order. In-text citations shall be provided as per (Author, Year) rule. In case of ONE author in reference, citation should be as (Author, 2006). In case of TWO authors in reference, citation should be as (Author1 and Author2, 2007). In case of THREE or MORE authors, citation should be as (Author1 *et al.,* 2013). Scientific name should be written according to binomial nomenclature rules.

* 1. **Sub-Heading**

This section shall include all the detailed information of the tools, techniques, resources, questionnaire, and methods used in your research.

* + 1. **Sub-Sub-Heading**

All the headings, sub-headings, and sub-sub-headings should be bold with 12 font size.

**Chapter 4: Results (14 Font Size, Bold)**

1. **Heading (12 Font Size, Bold)**

Explain what you have observed from your analysis.

* 1. **Sub-Heading**

This section shall include un-fabricated results in its original from your analysis.

* + 1. **Sub-Sub-Heading**

All the headings, sub-headings, and sub-sub-headings should be bold with 12 font size.

**Chapter 5: Discussion (14 Font Size, Bold)**

1. **Heading (12 Font Size, Bold)**

Headings and sub-headings should be given a number with order. In-text citations shall be provided as per (Author, Year) rule. In case of ONE author in reference, citation should be as (Author, 2006). In case of TWO authors in reference, citation should be as (Author1 and Author2, 2007). In case of THREE or MORE authors, citation should be as (Author1 *et al.,* 2013). Scientific name should be written according to binomial nomenclature rules.

* 1. **Sub-Heading**

Logically explain your results. What inferences are drawn from your results. Also relate your results with previously published relevant results.

* + 1. **Sub-Sub-Heading**

All the headings, sub-headings, and sub-sub-headings should be bold with 12 font size.

**References (14 Font Size, Bold)**

All the references should be arranged in alphabetic order, non-numbered, non-bulleted. General format of the reference is given as:

Authors. (Year). Title. *Journal*. Vol(Issue): pp. DOI.

Following is the format of references you have to follow.

**For Journal Articles:**

Zhang G, Liu W, Gu Z, Wu S, Yilan E, Zhou W, Lin J, Xu L. (2023). Roles of the wound hormone jasmonate in plant regeneration. *Journal of Experimental Botany*. 74(4): 1198-1206. DOI: <https://doi.org/10.1093/jxb/erab508>.

*Authors:* Write last name followed by initials of first name(s).

*Year:* Only mention year in parenthesis, e.g. (2004). do not mention day/month.

*Title:* Shall be in sentence case.

*Journal:* Use full name of journal in italics, e.g. *Nature Communications*

*Volume:* Numerical number of volume.

*Issue:* Mention issue number in parenthesis (if available)

*Page #:* Use full page numbers

*DOI:* Digital Object Identifier, the online link to access the article shall be provided. In case, DOI is not available then use URL of the paper.

**For Book Chapter:**

Chakdar H, Borse D N, Verma S, Choudhary P, Das S. (2019). Microbial management of crop salinity stress: Mechanisms, applications, and prospects. *In:* Akhtar M. S. (ed.) *Salt stress, microbes, and plant interactions: Mechanisms and molecular approaches.* Volume 2. 1-25. Springer Singapore, Singapore. DOI: <https://doi.org/10.1007/978-981-13-8805-7_1>.

**For Website:**

Connerly P L. (2010). How Do Proteins Move Through the Golgi Apparatus? [Online] URL: <https://www.nature.com/scitable/topicpage/how-do-proteins-move-through-the-golgi-14397318/> [Accessed: 10:21, 24th February 2023].

**Project Timeline**

At the end of this section, you will provide **Project Plan,** where you must identify all the components of the project and also specify how much time you will spend on each component. The justification should include your strengths and weakness from the project point of view and it should indicate that you have allocated appropriate time period for those modules that you find yourself as your weak points.

**Task Distribution**

You must provide contribution made by each member in the achievement of milestone. Mention the contribution in percentage.

**Budget / Expenditure**

Enlist all the budget cost / expenditure of the project.

| **Sr.** | **Milestone** | **Description** | **Completion Date** | **Contribution** |
| --- | --- | --- | --- | --- |
| 1 | Finalizing Project Title | Meeting with supervisor to discuss possible topics. One topic that was finalized is “microbial analysis…..” | 8 February 2023 | Member 1 (50%)Member 2 (50%)Member 3 (00%) |
| 2 | Sampling | Visited PAF hospital Rawalpindi and collected samples for analysis. All the members visited for sampling. | 10 February 2023 | Member 1 (40%)Member 2 (30%)Member 3 (30%) |
| 3 | Bacterial Strains Identification | Samples will be streaked on media for identification of bacteria | 06 April 2023 | Pending / In Progress |