**Logo, company name

Description automatically generated**

**TECHNO INTERNATIONAL NEW TOWN**

**Block-DG, Action Area 1, New Town, Kolkata -700156, West Bengal, India**

**Department of Computer Science & Engineering**

**Project-II Report (PROJ-CS781)**

***Time Series Analysis***

***Prepared by***

***Student-Khushi Suman (Roll No: -18700121040)***

***Student-Aratrik Chaudhari (Roll No:-)***

***Student-Rajdeep Manjumdar (Roll No:-)***

***Student- (Roll No:-)***

***Under the Guidance of***

***Prof. Faculty Name***

***Batch: - 2021-2025******Semester :7 th (2024 –ODD) Year: July 2024 – January 2025***

***Stream: - Computer Science & Engineering Year of Study: 4th***

***Affiliated to***

****

**MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL**

**(FORMERLY KNOWN AS WEST BENGAL UNIVERSITY OF TECHNOLOGY)**

**ACKNOWLEDGEMENT**

We would like to express our sincere gratitude to Prof. \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ of the Department of Computer Science & Engineering, whose role as project guide was invaluable for the project. We are extremely thankful for the keen interest he / she took in advising us, for the books and reference materials provided for the moral support extended to us.

Last but not least, we convey our gratitude to all the teachers for providing us with the technical skills that will always remain our asset and to all non-teaching staff for the cordial support they offered.

Place: Techno International New Town

Date: \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student-Name-1

(Roll No: - )

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student-Name-2

(Roll No: - )

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student-Name-3

(Roll No: - )

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student-Name-4

(Roll No: - )

Department of Computer Science & Engineering,

Techno International New Town

Kolkata – 700 156

West Bengal, India.

**Approval**

This is to certify that the project report entitled “………………………………….” prepared under my supervision by Student-Name-1 (Roll Number), Student-Name-2 (Roll Number), Student-Name-3(Roll Number) & Student-Name-4 (Roll Number) , be accepted in partial fulfillment for the degree of Bachelor of Technology in Computer Science & Engineering which is affiliated to Maulana Abul Kalam Azad University of Technology, West Bengal (Formerly known as West Bengal University of Technology).

It is to be understood that by this approval, the undersigned does not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn, but approves the report only for the purpose it has been submitted.

…………………………………………

Prof.(Name of the Project Mentor)

………………………………………….

Dr. Swagata Paul,

HOD, Computer Science & Engineering,

Techno International New Town

**Abstract**

This should ideally be one paragraph only (which may be big in size) that should briefly describe the topic/problem domain on which you are working on. The font size to be used should be Times New Roman of size 12 throughout the document. Take care to see that the paragraph is justified in this & subsequent sections.

**CONTENTS**

1. **INTRODUCTION ………………………………..………………… …… Page No.**
2. **PROBLEM DEFINITION……………………………………………………...**
3. **ARCHITECTURE (Like MVC) ……………………………………………**
4. **DATA FLOW DIAGRAM (Optional, if applicable)…………………………**
   1. **Context Level Diagram………………………………………………………………**
   2. **First Level DFD…………………………………………………………………..**
   3. **Second Level DFD (you should represent at-least 2 different diagrams)…….**

**4.3.1 Second Level DFD showing Activity1…………………………………….**

**4.3.2 Second Level DFD showing Activity2…………………………………….**

1. **ENTITY RELATIONSHIP DIAGRAM (Optional, if applicable) ……………**
2. **USE CASE DIAGRAM…………………………………………………………………..**
3. **CLASS DIAGRAM (Optional,-applicable for OOP approach)…….………………..**
4. **ACTIVITY DIAGRAM………………………………………………………………..**
5. **SEQUENCE DIAGRAM………………………………………………………………**
6. **SOURCE CODE (Optional, Applicable based on progress)**
7. **FUTURE SCOPE OF PROJECT…………………………………………………….**
8. **CONCLUSION………………………………………………………………………….**
9. **BIBLIOGRAPHY………………………………………………………………………..**

**LIST OF FIGURES**

1. **Figure Caption……………………………………………………………Page No.**

**(For every figure in the document it should be numbered along with a caption/title in the document where it is placed. The figure along with its number & Caption should be centrally aligned)**

**LIST OF TABLES (OPTIONAL)**

1. **Table Caption……………………………………………………………Page No.**

**(For every table in the document it should be numbered along with a caption/title in the document where it is placed. The table along with its number & Caption should be centrally aligned)**

1. **Introduction (**Should start on a new page)

In this section you need to specify the domain (like networking/Artificial Intelligence/Software Testing /Application oriented like web-development related etc.) you are working on & the related concepts / terminologies/methodologies involved.

1. **Problem Definition**

In this section you need to clearly specify the exact problem area and your working domain (like security aspect of files in file transfer in network) that you want to attack /resolve and whether such work has been previously done/existing.

1. **Architecture (Optional)**

In this section ideally you need to specify and explain with a diagram, the architecture (if any) in terms of structure, functionality & the extent to which you use /implement ie. Fully or partially (like MVC). The architecture of the project should be supported with a diagram. All diagrams should be immediately followed with a title. i.e.

Figure 1.1 shows the working flow of the model/project.

1. **Data Flow Diagrams(DFD) (**Should start on a new page)
   1. **Context Level Diagram**

In this section you need to specify the process & actors involved through a diagram

* 1. **First Level DFD**

In this section you need to specify the process & actors involved through a diagram. Please ensure that proper symbolic notations are used for process, actors and the processes should be properly numbered.

* 1. **Second Level DFD**

In this section you need to specify at least 2 such process involving actors, database (optional). Please ensure that proper symbolic notations are used for process, actors and database (if any) and the processes should be properly numbered.

1. **Entity Relationship Diagrams (**Should start on a new page)

In this section you need to specify the entity –relationship diagram. You need to identify & specify all the entities involved and then with a help of a diagram represent the same. Please ensure in the diagram the following properties are mentioned with proper notation: -

1. Primary key
2. Weak entity(if any)
3. Derived attribute(if any)
4. Cardinality of the relationships.
5. **Use Case Diagram**

In this section you need to specify actors involved, cardinality, relationship-types with proper notations.

1. **Class Diagram(Optional)**

In this section you need to identify & specify the classes involved. For each class specify attributes of the class with proper UML notation for its access specifiers i.e.. public ,protected ,private or default . For the functions you need to specify its access specifiers with proper UML notation i.e.. public, protected, private or default and its corresponding return type (i.e.. int/float/double/String).

1. **Activity Diagram**

In this section you need to identify the major activities and need to represent them with proper UML notations.

1. **Sequence Diagram**

In this section you need to identify the major activities and need to represent them with proper UML notations

1. **SOURCE CODE**

This is an optional section for this template. It is applicable if the design has been implemented with some desired output. This section should be framed as follows:

1. **Hardware Requirements**:
2. CPU b) RAM
3. **Software Requirements:**
4. Programming Language Used with version.
5. Name of Operating System with version.
6. Any external library/jar files.
7. External input files /dataset used.
8. **Source-code**
9. The programs must start with a comment that describes the motive of the program.
10. All the functions called from the main module must start with a comment that describes the motive of the function.
11. The last line of every function should be commented on as the function ends.
12. Important lines/statements of computation should be commented on to increase clarity /understanding.
13. **Future Scope of the Project(**Should start on a new page)

In this section you need to specify what are the areas left for you to complete /improve the project in the coming semester. If your project is complete, what are the pros & cons. In case your project is incomplete you can specify what technology you have thought to use to implement your design/algorithm & the reason/ justification.

1. **Conclusion(**Should start on a new page)

In this section you need to specify what you feel about your project in terms of its performance, its market demand/value and its advantage over other solutions (if existing), in case your project is complete. Also what have you learnt while working on this project.

1. **Bibliography(**Should start on a new page)

In this section you need to specify the references that you took for compiling your project which can be:-

12.1 Book name along with author name & publisher

12.2 Conference Paper refereed with format mentioned as follows:-

Author-name1,Author-name2,”Title of Paper”, Proceeding of Conference-name, Year.

12.3 Journal Referred with format mentioned as follows:-

Author-name1,Author-name2,”Title of Journal”, Name of Journal, volume no-,Year ,start-page number –end-page number.

12.4 URL of the websites

**---------------------------------------------X--------------------------------------------------------**