Font	Times New Roman
Main Heading	16pt (Bold)
Sub Heading	14pt (Bold)
Content	P12pt (Normal)
Figure / Table Caption	10pt (Normal)
Header	SD (4361604) (Left Aligned) 2025-IT-Group ID (Right Aligned)
Footer	Page Number (Right Aligned) Sir BPTI, Bhavnagar (Left Aligned)
Margin	Left, Right, Top, Bottom: 1.0” inch Gutter: 0.2” inch

III. System Design
    i. Database Design
        a. Data Dictionary
        b. Entity-Relationship Diagram
    ii. GUI Design (Actual GUI Screen shot)
IV. System Development
    i. Coding Standards
    ii. Tools Explanation
V. Testing
    i. Testing Strategy
    ii. Testing Methods
    iii. Test Cases
VI. Conclusion
    i. Benefits
    ii. Limitations
    iii. Future Enhancements

Reference

Appendix

- User Manual
- Presentation (ppt)

TOPIC NAME

A PROJECT REPORT

Submitted by

STUDENT NAME (ENROLLMENT NO)

STUDENT NAME (ENROLLMENT NO)

In fulfilment for the award of the degree

of

DIPLOMA ENGINEERING

in

INFORMATION TECHNOLOGY

Guided by

FACULTY NAME

Sir Bhavsinhji Polytechnic Institute Bhavnagar

Gujarat Technological University, Ahmedabad

April, 2025

GUJARAT TECHNOLOGICAL UNIVERSITY AHMEDABAD

SIR BHAVSINHJI POLYTECHNIC INSTITUTE

BHAVNAGAR

Certificate

This is to certify that Mr./Ms. _____ from **Sir Bhavsinhji Polytechnic Institute, Bhavnagar** College having Enrollment No: _____ has completed **Project Report** having title _____, individually/ in a group consisting of __ persons under the guidance of the faculty guide _____.

Institute Guide

Head of Department

Letter of Completion

[Company letter head]

No: Date

TO WHOM SO EVER IT MAY CONCERN

This is to certify that, Mr. /Mrs.

_____

Enrollment No._____Student of

_____

_

Has successfully completed a project in the field of

_____

From the date:_____ to date:_____.

[90% Attendance is mandatory for completion of Internship]

During the period of his/her summer internship program with us, He / She were exposed to following different processes and were found sincere and hardworking.

1. _____

2. _____

3. _____

4._____

Mentor Signature (Company)

Stamp

SIR BHAVSINHJI POLYTECHNIC INSTITUTE BHAVNAGAR-649
DEPARTMENT OF INFORMATION TECHNOLOGY
Software Development Registration Form

Student Details												
Enrollment Number												
Student Name												
Student Details	Mobile Number :											
	Email Address:											
Mentor Details (Institute)	Name:											
	Designation: Lecturer (IT)											
	Mobile No:											
Industry Details	Name:											
	Address:											
	Email:											
	Phone:											
	Website:											
Mentor Details (Industry)	Name:											
	Designation:											
	Mobile No:											
	Email Address:											
Mode of Project Carried Out	UDP/IDP											
Title of the Project carried out												
Nature of Work Carried Out	Web Design / Application development (Web / Mobile), Experimental results/ simulations/ Analysis of System(s) etc… Other please Specify_____											

Student Signature

Faculty Signature

Progress Card

Academic Year: 2024 **Semester: 6th**

Project Guide Name :	
Team No:	
Project Title:	
Enrollment No	**Name of Student**

Task No	Date of Contact by Team	Present as per schedule? (YES/NO)	Tasks to be completed? (YES/NO)	Sign of Project Guide	Remarks
1					
2					
3					
4					
5					
6					

Software Development Evaluation Rubrics for Institute
Department of Information Technology

Enrollment No: _____ Date of Evaluation: _____

Name of the Student: _____

Internal Evaluation – 50 Marks PA(I) (To be carried out by the mentor in consultation with Industry) Minimum Passing Marks: 20					
Parameter	**Excellent**	**Good**	**Average**	**Not up the level of Satisfaction**	**Obtained Marks**
Mark range	**9-10**	**7-8**	**5-6**	**Below 4**	
Technical knowledge and awareness related to the specific discipline. **10 Marks**					
Attendance and punctuality during the internship period**. 10 Marks**					
Receiving and providing feedback during the internship period. **10 Marks**					
Team work in the organization and adaptation capacity**. 10 Marks**					
Report writing and Presentation Skill. **10 Marks**					
Total Marks Obtained Out of 50 PA(I)					

Industry Supervisor Name: _____ Signature: _____

External Evaluation – 50 Marks ESE(V) (To be carried out by the External) Minimum Passing Marks: 20					
Parameter	**Excellent**	**Good**	**Average**	**Not up the level of Satisfaction**	**Obtained Marks**
Mark range	**9-10**	**7-8**	**5-6**	**Below 4**	
Demonstrates skills needed for assigned tasks and effective use of engineering tools and techniques. **(10 Marks)**					
Maintains professional manner / appearance and Manages time/resources effectively. **(10 Marks)**					
Intern attendance and punctuality during the internship period and dedication towards work assigned. **(10 Marks)**					
Understands expectations of supervisor and seeks further guidance when appropriate. **(10 Marks)**					
Quality of industrial report and presentation skill. **(10 Marks)**					
Total Marks Obtained Out of 50 ESE(V)					

Institute Resource Examiner Name: _____Signature: _____

Sr No	Month	Week
1	January	05
2	February	04
3	March	04
4	April	04
	Total	17

4.1 Coding Standards and Guidelines

Different modules specified in the design document are coded in the Coding phase according to the module specification. Good software development organizations want their programmers to maintain to some well-defined and standard style of coding called coding standards. They usually make their own coding standards and guidelines depending on what suits their organization best and based on the types of software they develop. It is very important for the programmers to maintain the coding standards otherwise the code will be rejected during code review.

Purpose of Having Coding Standards:

- A coding standard gives a uniform appearance to the codes written by different engineers.
- It improves readability, and maintainability of the code and it reduces complexity also.
- It helps in code reuse and helps to detect error easily.
- It promotes sound programming practices and increases efficiency of the programmers.

Some of the coding standards are given below:

1. **Limited use of globals:** These rules tell about which types of data that can be declared global and the data that can't be.
2. **Standard headers for different modules:** For better understanding and maintenance of the code, the header of different modules should follow some standard format and information. The header format must contain below things that is being used in various companies:

- Name of the module
- Date of module creation
- Author of the module
- Modification history
- Synopsis of the module about what the module does
- Different functions supported in the module along with their input output parameters
- Global variables accessed or modified by the module

3. **Naming conventions for local variables, global variables, constants and functions:**
   Some of the naming conventions are given below:
   - Meaningful and understandable variables name helps anyone to understand the reason of using it.
   - Local variables should be named using camel case lettering starting with small letter (e.g. **localData**) whereas Global variables names should start with a capital letter (e.g. **GlobalData**). Constant names should be formed using capital letters only (e.g. **CONSDATA**).
   - It is better to avoid the use of digits in variable names.
   - The names of the function should be written in camel case starting with small letters.
   - The name of the function must describe the reason of using the function clearly and briefly.
4. **Indentation:** Proper indentation is very important to increase the readability of the code. For making the code readable, programmers should use White spaces properly. Some of the spacing conventions are given below:
   - There must be a space after giving a comma between two function arguments.
   - Each nested block should be properly indented and spaced.
   - Proper Indentation should be there at the beginning and at the end of each block in the program.
   - All braces should start from a new line and the code following the end of braces also start from a new line.
5. **Error return values and exception handling conventions:** All functions that encountering an error condition should either return a 0 or 1 for simplifying the debugging.

   On the other hand, Coding guidelines give some general suggestions regarding the coding style that to be followed for the betterment of understandability and readability of the code. Some of the coding guidelines are given below :

6. **Avoid using a coding style that is too difficult to understand:** Code should be easily understandable. The complex code makes maintenance and debugging difficult and expensive.
7. **Avoid using an identifier for multiple purposes:** Each variable should be given a descriptive and meaningful name indicating the reason behind using it. This is not possible if an identifier is used for multiple purposes and thus it can lead to confusion to the reader. Moreover, it leads to more difficulty during future enhancements.
8. **Code should be well documented:** The code should be properly commented for understanding easily. Comments regarding the statements increase the understandability of the code.
9. **Length of functions should not be very large:** Lengthy functions are very difficult to understand. That's why functions should be small enough to carry out small work and lengthy functions should be broken into small ones for completing small tasks.
10. **Try not to use GOTO statement:** GOTO statement makes the program unstructured, thus it reduces the understandability of the program and also debugging becomes difficult.

Advantages of Coding Guidelines:

- Coding guidelines increase the efficiency of the software and reduces the development time.
- Coding guidelines help in detecting errors in the early phases, so it helps to reduce the extra cost incurred by the software project.
- If coding guidelines are maintained properly, then the software code increases readability and understandability thus it reduces the complexity of the code.
- It reduces the hidden cost for developing the software.

5.1 Testing Strategy

⚫ Unit Testing
⚫ Integration Testing
⚫ Validation Testing
⚫ System Testing

5.2 Testing Methods

⚫ Black box Testing
⚫ White box testing

Black Box Testing	White Box Testing
1. Black box testing techniques are also called functional testing techniques.	1. White box testing techniques are also called structural testing techniques.
2Black Box Testing is a software testing method in which the internal structure/ design/ implementation of the item being tested is NOT known to the tester	2. White Box Testing is a software testing method in which the internal structure/ design/ implementation of the item being tested is known to the tester.
3. It is mainly applicable to higher levels of testing such as Acceptance Testing and System Testing	3. Mainly applicable to lower levels of testing such as Unit Testing and Integration Testing
4. Black box testing is generally done by Software Testers	4. White box testing is generally done by Software Developers
5. Programming knowledge is not required	5. Programming knowledge is required
6. Implementation knowledge is not required.	6. Implementation knowledge is required

5.3 Test Cases (Minimum 5 to 10 Test cases are required)

TEST Cases						
Pre conditions: User has valid User name and Password						
Dependencies:						
Step	**Test Steps**	**Test Data**	**Expected Result**	**Actual Result**	**Status (Pass/Fail)**	**Notes**
1	Navigate to login page		User shoul be able to login	User is navigated to dashboard with successful login	Pass	
2	Provide Valid Username	UseID: a@a.com				
3	Provide valid password	Password: 1234				
4	Clock on login page					
5						
6						
Post Conditions: User is validated to database and successfully login to account.						