GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Master of Computer Applications, 3rdSemester
Subject Name: Software Project-2
Subject Code: 639404

With effective from academic year 2021-22

1. **Prerequisites:** Programming Language, Basic Concepts of Software Engineering, RDBMS.

2. Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE (E)	PA (M)	ESE (V)	PA (I)	
-	-	4	2	-	-	80	20	100

3. Course Outcomes:

Course Outcome Component	Course Outcome (Learner will be able to)
CO-1	Develop Project using Emerging Framework
CO-2	Analyze real word issues and develop roadmap to resolve those issues using cutting edge technologies
CO-3	Explore Project Development Life Cycle

4. Guidelines for Project using Framework

- It is suggested to develop Web/Desktop/Mobile applications using emerging frameworks like Magneto, CodeIgniter, Flutter, React Native, Angular, Node.js or any other open source frame works.
- It is recommended that the team should be of 2-3students.
- The project should be free from plagiarism of any kind.
- Project must have proper documentation.
- This may or may not be a live project.
- Coding standards should be followed meticulously. At the minimum, the code should be self-documented, modular, and should use the meaningful naming convention.
- It is advisable that object-oriented methodology is used with reusability of classes and code, etc.
- The output reports must include MIS reports, if applicable.
- The documentation should include a chapter on “Learning during Project Work”, i.e. “Experience of Journey during Project Duration”.
- Student may be asked to write the code related to the project during examination.
- Mentor/ Internal guides (i.e. the faculty members) must devote time, allocated as per the time table to guide the students for the project. The time allocation will be in accordance with the teaching scheme for 5th semester project.

5. Documentation:

- The project has to be well-documented in the form of a Project Report (at least 50 pages comprising of the relevant description of the project including design, data dictionary, source code, screenshots, etc.).
- Format: The Project report Print out should be taken on both the side of page with single line spacing. Use Times New Roman of size 10 for normal text. A typical Table of content will be as follows.

TABLE OF CONTENTS

1. Introduction
    1.1. Existing System
    1.2. Need for the New System

1.3. Objective of the New System
1.4. Problem Definition
1.5. Core Components
1.6. Project Profile
1.7. Assumptions and Constraints
1.8. Advantages and Limitations of the Proposed System

2. Requirement Determination & Analysis
   2.1. Requirement Determination
   2.2. Targeted Users
3. System Design
   3.1. Use Case Diagram
   3.2. Class Diagram
   3.3. Interaction Diagram
   3.4. Activity Diagram
   3.5. Data Dictionary
4. Development
   4.1. Coding Standards
5. Agile Documentation
   5.1 Agile Project Charter
   5.2 Agile Roadmap / Schedule
   5.3 Agile Project Plan
   5.4 Agile User Story (Minimum 3 Tasks)
   5.5 Agile Release Plan
   5.6 Agile Sprint Backlog
   5.7 Agile Test Plan
   5.8 Earned-value and burn charts
6. Proposed Enhancements
7. Conclusion
8. Bibliography

6. Knowledge about the following is expected to be demonstrated.

- The objective of the Project Development is to make students aware about the industry based process and workings using Framework. As a result, Project must meet with the industry standards.
- Proper knowledge about the purpose of the application.
- Use of justifiable application for group of 2-3members.
- Project must include features like MIS Reports, Advance Search, File based processing etc.

7. Evaluation

Students shall be evaluated on the following components:

A	**Internal Evaluation**	**(Total – 20 Marks)**
	• Continuous Evaluation Component	10marks
	• Class Presence & Participation & Project Report	10marks
B	**End –Semester Examination(Practical/Viva)**	**(80 Marks)**

8. Assessment Weightage

Sr. No	Particulars	Marks
1	Project	24
2	Documentation	16
3	Code Changes	20
4	VIVA	20

Web References:

1) https://magento.com/
2) https://reactnative.dev/docs/getting-started
3) https://codeigniter.com/download
4) https://angular.io/docs
5) https://nodejs.org/en/download/
6) https://flutter.dev/docs/get-started/install
7) ionicframework.com/docs
8) https://visualstudio.microsoft.com/xamarin/
9) https://github.com/xamarin
10) https://www.djangoproject.com/