BCA – 4th Semester
Teaching Schedule

030010415: DSE6 Project   Course Credit: 2   Total Hours: 04

Course Objective: To learn and follow the tasks involved in SDLC and on that basis develop project as per the requirements determined.

Course Outcomes: Upon completion of the course, the student shall be able to

CO1: Plan, design, implement and test a useful and robust application.

CO2: Apply database management systems concepts to organize, store and retrieve data.

CO3: Demonstrate the ability to work as a team member and/or leader.

CO4: Apply appropriate model to build effective application.

CO5: Communicate effectively with a range of audiences.

Programme Outcomes:

PO1: Ability to understand the concepts of key areas in computer science.

PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.

PO3: Effective communication and presentation skill.

PO4: Ability to understand professional and ethical responsibility.

PO5: Recognition of the need for life-long learning.

Programme Outcomes and Course Outcomes mapping:

Programme Outcomes	Course Outcomes				
	CO1	CO2	CO3	CO4	CO5
PO1	✓	✓		✓	
PO2	✓	✓		✓	
PO3			✓		✓
PO4				✓	
PO5	✓	✓	✓		✓

Table 1Program and Course outcome mapping

Project Guidelines:

- Student must have to continue with the same team and same project definition of their third semester.
- Project work execution shall be in parallel with other course teaching-learning activity. Assessments of project work shall also be in parallel with remaining courses' assessment.
- Guide shall be allocated to the teams by Project committee in the first week of semester.
- Project can be accomplished by using concepts, tools and/or technologies of the courses taken by the student during their earlier semesters or of any other course beyond the curriculum.

- Project team must refine the requirements analyzed in previous semester and freeze the project requirements with tools and technologies and submit the same document dually signed by students and guide to project committee before second week of the semester.

Project Hours:

- Approximately minimum 100 hours to be spent by student for project work.

Support and guidance team for Project:

- Support and Guidance Team is created so that student or guide can receive additional support for respective project work.

System Analysis and Design	KBL, BAD, KYP, TPR, JBU, PBG
Database Design	JRS, ADP
System Testing	BCP, JKT, PBG
Web based Development	PBN, JHT,VRF,RMP,KKB,MMS
Mobile based Development	DCP, ZMK, UJP
Content Management over Web Application	UYS, KKB
Data Analytics	BCP, JRS, JKT, CMT
IoT based Development	BCP, PRS, JAP
Project Development Support	Respective Guide

Table 2 Support and guidance team for project

Project Timeline:

- Teams are expected to plan their project tasks well in advance and execute the same with punctuality.
- Students must keep track of submissions by timely referring the mails and guidelines/circular related to project work published on our website
- Project team must submit the timeline of [100 x total team members] schedule to the guide in the 2nd week of semester.
- Time line must contain specific task to complete within specified duration.
- Project Timeline must be contain minimum 12 – 15 tasks related to the project execution and duration of each task.
- Timeline will be evaluated twice during semester.
- Project Timeline must submit according to format given in **Annexure-I**.

Task Timeline:

- During the semester tasks given in Table-3 will be carried out by student or guide.

Sr.No.	Task	Conducted By	Duration (in weeks)	Deliverables
1	Requirement freezing and choosing of tools and technologies	Student	3	Document with finalized requirements
2	Data dictionary, and User Interface	Student	3	Implemented data repository
3	Presentation regarding "Modularity in project management"	Guide	4	-
4	Implementation of at least 40% functionalities	Student	5	Demonstration of Implemented functionalities
	Presentation regarding "Test case designing and validation process"	Guide	6	-
5	Implementation of all specified functionalities	Student	7	Demonstration of Implemented functionalities
6	Report generation including Dashboard	Student	8, 9	Demonstration of Reports including Dashboard
7	Test case reports	Student	10-11	Demonstration of test cases
8	Final Project Document	Student	12	Spiral bound document

Table 3 Task timeline during semester

Reporting:

- A project team shall maintain a log book.
- A student doing project at institute shall have to report about the project's progress to guide on assign project time slot.
- Refer format for logbook according to **Annexure-II**.

Project Progress and Evaluation

- Project must be evaluated on continuous basis through following parameters:
  - o Project timeliness
  - o Usability of project
  - o Project work related documentation
  - o Project work related presentation

- To determine the progress of the project work, following parameters must be considered :

Assessment Code	Assessment Type	Occurrence	Each Of Marks	Weightage in CIE of marks(50)	Evaluated By	Tentative Dates
A1	Timeline Status Report	2	10	2x2=4	Guide	13/12/2019
						20/01/2020
A2	Presentation	2	60	5X2=10	Panel decided by the Project Committee	10/01/2020
						17/02/2020
A3	Document Report	2	30	3X2=6	Panel determined for Presentation	03/01/2020
						03/02/2020
A4	Semester End Examination	1	60	30X1=30	Panel decided by the Project Committee	11/04/2020

Table 4Assessment types with specification

- Each team will be given at least twenty minutes of project presentation followed by approximately ten minutes of viva.
- Project team is only eligible for presentation if they have review certificate, which is certified by respective guide. Review certificate is required for each presentation as per the format given in **Annexure-VI**.

A1: Timeline Status Report:

- There shall be two timeline status reports, which shall be evaluated by guide.
- In first timeline status report timeline and freeze project requirement must be submit to project committee and evaluated by guide based on following criteria :

Parameter	Marks (10)
Freezing of requirement	05
Student Reporting	05

Table 5 Parameters and marks for timeline status report-1

- Timeline shall be evaluated by guide on daily basis and the status has to be marked by the project guide on the day of estimated completion date or actual end date, whichever comes first. The status can further be updated on the day of estimated completion date or actual end date whichever comes later. When the status is set to "Completed", the mode must also be marked by the guide.
- Timeline status report must be submit on specified date with updated status and mode by guide and photocopy of logbook to the project committee as per the format given in **Annexure-III** with declaration.

- Timeline status report – 2 is evaluated based on following parameters :

Parameter	Marks (10)
Work Completion Percentage	-
Work Completion Marks	07
Student Reporting	03
Remarks*(Reasons for project lagging and steps for coping up)	

Table 6 Parameters and marks for timeline status report-2

A2: Presentation:

- There shall be two presentations, which shall be evaluated by examiner panel.
- During presentation, a student has to bring log book, updated timeline and document.
- Student shall use presentation slides to explain the project work.
- No make-up work shall be accepted for missed or failed presentation.
- Presentation must be reviewed by internal guide. A review certificate must be submitted at time of presentation. [Note: A review certificate format will be provided by Project Committee before time of presentation.]
- Presentation marks weightage, template, and objective is as below :

Parameter	Marks (60)
Requirement Analysis	3
System design	6
Demonstration	25
Coding Specification	20
Presentation Skills	6

Table 7 Evaluation parameters and marks for presentation-1

Parameter	Marks (60)
Implementation of project	20
Technical and Testing Skill	15
Presentation and communication skills	10
Implementation of suggestion given in Presentation 1	5
User reports	10

Table 8Evaluation parameters and marks for presentation-2

- **Objective of Presentation 1 :**
  - To verify, that the students are on right path of project execution.
  - To assess the project implementation skills and presentation skills.
  - To determine the process of project implementation.
  - To provide an insight for modification, enhancement into the current work and suggestions for improvement for better execution of succeeding work.

Presentation -1 must consist of the following:

- o Project title, team member names, enrolment numbers, guide name
- o Project problem definition with functionalities
- o Data dictionary
- o GUI design

- **Objective of Presentation 2 :**
  - o To verify that the students have fulfilled the requirements.
  - o To verify SRS, conceptual diagrams, data dictionary and reports.
  - o To verify that students have documented in their project work the comments/suggestions of improvement given during presentation 1.
  - o To assess presentation skills, project implementation skills.
  - o To verify coding standards, design user reports.
  - o To provide an insight for modification, enhancement into the current work and suggestions for improvement for better execution of succeeding work.

Presentation - 2 must consist of the following: Project title, team member names, enrolment numbers, and guide name

- o Project problem definition with functionalities
- o Data dictionary
- o User Interface design (Screenshot of functionality implemented and reports generated)
- o Critical code of project
- o Reports
- o Test cases (Screenshots of validation performed in project)

A3: Document Report:

- There shall be 2 documentation reports submission during the semester.
- Students have to verify document and get it signed by guide and submit to project committee.
- Project Document -1 will be partial document and Project Document -2 will be full spiral bound copy of document.
- In case, if a student failed to meet the deadlines, he/she shall receive zero marks in particular parameter.
- As Project Document- 2, student shall have to submit spiral bounded copy of project document compulsorily in the prescribed format along with soft copy in CD before the Semester End Presentation with approval of internal guide as well as signed certificates from institute and endorsed by Program coordinator.

- Marks weightage of Documentations are as given below:

Parameters	Marks(30)	Topics for partial submission from project report
Document flow & Formatting	3	
Data dictionary	6	
GUI design	9	Chapter 1, 2, 3 format discussed at end of document.
Coding specification	6	
Reporting	3	
Viva	3	

Table 9Evaluation parameters for Presentation – 1

Parameters	Marks(30)	Topics for submission from project report
Implementation or Working demo	12	
Validation and testing	5	Full Document as format discussed below.
Dashboard and reports	5	
Incorporation of Suggestion given in 1st project document progress report	3	
Reporting	2	
Viva	3	

Table 10Evaluation parameters for Presentation - 2

Project Document Report Format: Document of project shall be creating using following format.

   i. **Title Page**

   ii. **Project Certification Form(From Institute)**
[The Institute certificate should be signed by internal project guide and endorsed by program coordinator.]

  iii. **Declaration certificate**
[A self-declaration regarding work originality and non-plagiarism. Declaration certificate format is given below.]

  iv. **Acknowledgement**
[All persons (e.g. guide technician, friends, and relatives) and organization/authorities who/which have helped in the understanding of the project shall be acknowledged.]

   v. **Table of Contents with page numbering**

  vi. **List of Tables, Figures, schemes**

1. Introduction of Project

1.1   System outline
[System outline means the introduction of system to be develop.]

1.2   Purpose
[Purpose means the objective to develop a project. Purpose describes what a project is trying to achieve.]

1.3   Scope
[Project scope should have a good idea of what the project consists of (and what will not be part of the project). This statement will give a view of the project.]

1.4   Tools and Technology
[Mention the technologies i.e. hardware and software to be used in your project development and required for deployment.]

1.5   Functionalities
[Describes the functionality in system in following two parts: Expected functionalities, Exciting functionalities. All functionalities should be well described.]

1.6   User Characteristics
[Identify classifications of users of your system. E.g. System administrator, client. Care should be taken that no user name will be "USER". Write user wise functionality available in proposed system with detail description.]

1.7   Data Dictionary, integrity constraints
[A set of information describing the contents, format, and structure of a database and the relationship between its elements used to control access to and manipulation of the database. Database must be normalized.]

1.8   Summary

Expected Functionalities	Exciting Functionalities
Name of functionality – 1	Name of functionality - 1
Name of functionality – 2	Name of functionality - 2
Count : <count>	<count>
Total No. of Functionality: <count>	
Total No. of Tables: <count>	

2. System Design

2.1 GUI Design (Functionality wise)
2.2.1 Traversals (In hierarchical form)
Menu1
>Submenu1

Menu2
>Submenu1
>Submenu2
>Submenu3

2.2.2 Screenshots
-Image with caption

Description	
Data From	Table, End User, Remote Server or others.
Data To	Table, End User, Remote Server or others.
Critical Validations	Regular expression/other relevant things with description.

2.2.3 Error page with description
[Status code based error handling / list of dialogue box with error description]
2.2.4. Summary

Functionality1	Number of Pages/Forms
Functionality 2	Number of Pages/Forms
Functionality 3	Number of Pages/Forms
Total	

3. Coding Specification
3.1. External libraries
[List and describe used APIs, libraries, plug-ins, web services and algorithms.]
E.g.: MD5 Encryption Algorithm for storing password, Google Location API to fetch current location for particular web page.
3.2 Coding standard [If Any]
- [Critical code with justification is required.
- Line of Code for whole project: <count>]

4. Reports
4.1 Dashboard
Image

View-1 Name	
Description	
Data From	Table , End User , Remote Server or others
Data To	Username
View-2 Name	
Description	
Data From	Table , End User , Remote Server or others
Data To	Username

4.2 TPS/MIS Reports

Image with caption

Report-1 Description	General/Filter reports. e.g. General reports: Display all transactions Filter report: Display all debit transactions of <to date> to <from date>
Input Fields	
Used Tables	
Usage	

4.3 Summary
   [No. of reports user wise]

5. **Project Testing**
   5.1. **Unit Testing**
       [[Applied functionalities with its testing description.]
   5.2. **Testing of any three functionalities except login.**
       [Test Case Report]
   5.3. **Summary [No. of Test Cases]**

6. **Future scope in detail**
7. **Learning during Project Work**
8. **References**
   [List of books or web links that used during project.]

*Note: Consider above given specifications as least expected content. Enhancement is preferred in specifications on the basis of the nature of the project.

Guideline for Report Formatting:

- Use A4 size page with 1" margin all sides.
- Header should include Project tile and footer should contain page number and enrollment numbers.
- Chapter name should be of Cambria font, 20 points, Bold.
- Main heading should be of Cambria font, 16 points, Bold.
- Sub heading should be of Cambria font, 12 points, Bold.
- Sub heading of sub heading should be of Cambria font, 12 points, Bold, Italic.
- Paragraph should be of Cambria font, 12 points.
- Line spacing - 1.5 lines, before - 0, after - 0.
- No chapter number for references.
- Before chapter 1, give page number in roman letter (Title Page, Project Certification Form, Acknowledgements, Table of Contents/Index with page numbering, List of Tables, Figures, Schemes and Summary/abstract of the project work).
- Each project document must have front page according to **Annexure-IV.**
- Each project document must have declaration certificate page according to **Annexure-V**.

<<Institute Name>>

<<Course>><<No.of Semester>> Semester

Course Name: DSE6 Project   **Course Code: 030010415**

Project Team : <<No>>   **Project Title:**

Project Timeline

Project Timeline planning must list all the specific required tasks that are required achieve the functionalities described in system design. Tasks must be measurable.

Sr. No	Project Task	Estimated Start Date	Estimated End Date
	Total Days	**<count>**	

Declaration:

I/We hereby declare that the timeline is prepared keeping in mind the complexity of each task and other aspects related to this project development. The duration planned is meant to be as close as the actual one.

The tasks and deadlines are approved.

Enrolment Number	Name	Signature
<<Guide Name>>	**<<Signature>>**	

Date:

Place:

Annexure-II: Format of logbook

1st Page of Logbook

Team No:		Semester :		Course:	
	Enrollment No	Name			
Student Details :					
Project Title:					
Guide Name:					

2nd Page of Logbook

Date of Reporting	Enrollment No.	Task Assigned	Comment regarding previous task	General Comment	Student Signature	Internal Guide Signature
	<enrollment1>					
	<enrollment2>					
	<enrollment3>					

Annexure-III: Timeline status report format

Sr. No	Project Task	Estimated Start Date	Estimated End Date	Actual Start Date	Actual End Date	Status (Complete /Pending) & Date	Mode (In time /Early /Delay) & Date

Declaration:

The estimated dates are as per the timeline planning submitted. The actual dates are mentioned as the tasks have started and/or ended.

The status is marked after appropriate verification.

Enrolment Number	Name	Signature
<<Guide Name>>	<<Signature>>	

Date:

Place:

PROJECT

<<TITLE IN CAPITAL LETTERS>>

Submitted By,

<<Student's Name (Enrollment Number)>>,

<<Student's Name (Enrollment Number)>>

Guided By,

<<Internal Guide Name>>

for partial fulfillment of the requirements

for the Degree of Bachelor of Computer Applications

B.V.Patel Institute of Computer Science,

Uka Tarsadia University.

December, 2019.

DECLARATION

We hereby declare that the project titled "*<<Project Title>>*"is fully implemented by us. It is neither paid nor copied. Even though, later on, in case of any infringement found for this project work, we are solely responsible for the same and understand that as per UGC norms, the University can revoke the degree conferred to us.

Enrolment Number	Name	Signature

Declaration:

As a guide, I assure that there is no plagiarism found in submitted document.

Guide Name	Signature

CERTIFICATE

This is to certify that required part of the project entitled *"<<Project Name>>"* is submitted by **<<Student Name (Enrolment No.)>>, <<Student Name()>> and <<Student Name(Enrolment No.)>>** as a partial fulfillment during the 4th semester of <<5 years of Integrated MCA/Bachelor of Computer Applications>> for the academic year 2019-2020.

I hereby declare that following points are verified related to <<1st /2nd>>project presentation of this project work:

- ☐ Project Presentation slides
- ☐ Project Demonstration

<<Guide Name>>

     Guide

Date:

Place: Bardoli ,UTU