

CMPE331 Project

İstanbul Bilgi University Fall 2018

Submission deadline: December 02, 2018
Presentations: December 10 and 23

Students will have a team project according to the brief below, during the term. They will apply the theoretical knowledge of SE into a real software. At the end, they will submit whole documentation and make a presentation.

Requirements of the project

Evaluation guide

- | | |
|---|-------|
| 1. Create a group with 3-5 members and choose project. | (%5) |
| 2. Organize your project (team members and their responsibilities, time-line, process model, customer etc.) | (%5) |
| 3. Analyze, design and synthesize the problem. | (%10) |
| 4. Decide the methods, tools and algorithms. | (%10) |
| 5. Code and test. | (%20) |
| 6. Make a detailed document which includes problem statement, methods/algorithms, life cycle of project, roles of group members, implementation(s), tests etc | (%25) |
| 7. Present your project (20 minutes representation in class). | (%25) |

Brief

The application will be used in primary school for student evaluation. The application will be used by primary school teachers, students and parents.

There should be different privileges for student, teacher and parent. For each student the teacher will enter the grades, current status of kid and recommendations for the parent. Parent can only see his or her child grade and information and not the others'.

There will be a page related with basic academic properties for the kids. Some links, pictures for both student and family.

CMPE331Project

İstanbul Bilgi University Fall 2018

CMPE 311 Software Engineering Concepts

Project Report Template

1. Project title
2. Groupe members and groupe leader (project manager)
3. Project description
4. Project purpose
5. Project UML Use Case diagram
6. Project planning and schedule
7. Risks and management
8. Software Process
9. Project Cost
10. Project monitoring and reviews
11. Groupe members' tasks and their evaluation
12. Project testing
13. Quality parameters and results
14. User Guide (include configuration, how to use it and maintain)
15. Conclusion

To write this report, please read Pressman & Sommerville source lecture books.

Necessary Documentation

- 1- Software specification
- 2- UML Class Diagrams
- 3- UML Sequence Diagrams
- 4- Use Case and Test Plan
- 5- Your Code
 - *UI Design
 - *Database Design (Recording the data to array, doc or database)
 - *Code structure

Each person in the group will present at least one of the items.

CMPE331 Project

İstanbul Bilgi University Fall 2018

Term Project Grading Criteria

Analysis/design (40):

Requirement specs (5). How complete are they, were they revised per suggestions, did they communicate well to the customer and programmers?

Use cases (5). How complete are they, do they show all reasonable alternatives, did they communicate well to the customer and programmers?

UML diagrams (5). How complete are they, do they exploit inheritance, dynamic binding and abstraction, do they communicate the design well to the programmers?

Design(5). How complete are they, do they use formal or informal notation, are all preconditions and postconditions defined, abstract classes and methods marked, do they communicate the contract well to the programmers?

User interface and/or database design (3). Is it obvious to the programmers what the user interface should look like, and is a separate class design provided if necessary? If a database is needed, is a schema provided?

Sequence diagrams, Do sequence diagrams show the dynamic behavior of the system adequately. If the system requires multiple threads, is this made obvious to the programmers? Have the analysis and design documents been revised in a timely manner in response to recommendations from the instructor or the programmers?

Test plan. (3) Do the analysts provide the programmers with a test plan outlining criteria for unit, system and acceptance testing? How would the programmers, analysts, customer know that a project has been implemented successfully? Do the analysts verify that the system has been tested adequately and report on the status of the program to the at the end of the project life cycle (the semester) to the other stakeholders?

Role assessment forms from analyst designers (1) Factor in role assessments.

Program/testing (40):

1-How much of the project is complete? If not, how useful is it a prototype? (12)

2-How well does it follow the design? Were designers involved in changes? (4)

3-Code quality and comments. Was the code set up for Javadoc and was Javadoc comments provided (or something analogous for C++ code)? (4)

4-How visibly and effectively is a test plan followed? Were Junit tests done? (4)

5-How acceptable is it or will it be to the customer? Is there a user evaluation report? (3)

6-Project documentation for user and maintenance. User manual, developer notes, bug report, to-do list. (3)

7-Role assessment forms from programmers (1) Factor in role assessments.