**ECE 651**

**Spring**

18

**Team BB8**

Project Plan for DukeTutor App

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08

**Fall**

# Project Documentation Plan

The project documentation will include an overall project description, this plan, the requirements / use cases, the system architecture and all design models. The Project Documentation will also include an Appendix for the READ.ME and an Appendix for the User’s Guide. The purpose of the project documentation is to supplement the code deliverable will all relevant project information. The Project Documentation will be in the form of a .pdf document and will be delivered and presented on April 15th.

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| --- | --- | --- | --- | --- | --- |
| Task ID | Description | Owner | Start | Finish | Dependencies |
| ProjDesc | Renew the project description due to adjustments of the function and architecture. | BB8 Team | 03/01 | 03/03 | None |
| Rqmts | Specify the requirements in detail, and change or expand certain statements. | BB8 Team | 03/04 | 03/08 | Project Design |
| UseCase | Adjust the user story with the updated sprint 1 content. | BB8 Team | 03/09 | 03/10 | Requirements |
| SysArch | The draft system architecture needs to be updated and finalized | BB8 Team | 03/11 | 03/14 | Requirements User Case |
| DsnModel | Make detailed sequence diagram and class diagram. Clarify the system components and functions. | BB8 Team | 03/10 | 03/14 | System Architecture |
| ReadMe | ReadMe will give brief introduction of the app and how to get start with it. | BB8 Team | 04/01 | 04/10 | Project Design  Requirements  User Case  System Architecture  Design Model |
| UserGuide | UserGuide will give specific instructions on how to operate the app | BB8 Team | 04/01 | 04/15 | Project Design  Requirements  User Case  System Architecture  Design Model |

# Code Development

This is a complete project plan for the development of the DukeTutor app, starting from Feb 19th , the beginning of sprint 1. The final deliverable will be pushed to Git on April 15th. The Git repository will contain all code required to build DukeTutor (app code and server code), along with complete documentation in the READ.ME on how to build, install and run the project.

## Sprint 1

Sprint 1 will be delivered on March 4th. By that time, our delivery will contain an executable app and server code which allow users to register with valid duke ID, fill out information about themselves as well as tutoring session. Additionally, it will also include some initial functionality to test an end-to-end flow.

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| --- | --- | --- | --- | --- | --- | --- |
| Category | Task ID | Description | Owner | Start | Finish | Dependencies |
| Other | Study | how the basics of Java and Android Studio | BB8 Team | 02/19 | 02/22 | None |
| Front End | Registration | Build Authentication system based on registration, log in and log out | Yunjing Liu | 02/22 | 03/04 | Study |
| Front End | Profile Collection | After logging in, user should fill out a form of personal information as well as tutor session information. If the user has nothing to tutor, he or she should be able to leave it blank. | Rui Zhang | 02/22 | 03/04 | Registration |
| Back End | Registration info collection | On server side, server should receive one use’s registration information and save it to database | Jie Wang | 02/22 | 03/04 | None |
| Back End | User profile info collection | Server should also collect users’ other information as well as their tutoring session accordingly, if there is any. | Haozhe Wang | 02/22 | 03/04 | None |

## Sprint 2

Sprint 2 will be delivered on March 18. By that time, our app will allow users to search relevant tutoring sessions and have conversations with others. The app can communicate with the server, and the server will be able to process requests. In addition, we will set up load balancing to improve the scalability.

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| --- | --- | --- | --- | --- | --- | --- |
| Catagory | Task ID | Description | Owner | Start | Finish | Dependencies |
| Frontend | AppSearch | Create user interface for where tutees can type in topics they are interested in. Send search request to server and get back response and display the response to the user. | Rui Zhang | 3/5 | 3/15 | None |
|  | Conversation | Two users (a tutor and a tutee) can have a conversation in the app. | Haozhe Wang, Yunjing Liu | 3/5 | 3/15 | None |
| Backend | ServerSearch | Enable the server to receive search requests, make queries in the database, and send the results back. | BB8 Team | 3/15 | 3/18 | AppSearch |
|  | Scalability | Run multiple servers, connect them to the same database. Set up load balancing. | Rui Zhang | 3/5 | 3/15 | None |

## Sprint 3

Sprint 3 will be delivered on April 2nd. By that time, the tutor and the tutee could make confirmation of a tutoring session and the tutee could pay for the tutor. This delivery will complete the graphical user interface for the confirmation page and the payment page. In the backend, a record module will be completed to track tutoring history and a payment will be completed to handle payment requirements. Moreover, this delivery will meet the security requirement of users’ information and payment.

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| --- | --- | --- | --- | --- | --- | --- |
| Catagory | Task ID | Description | Owner | Start | Finish | Dependencies |
| Frontend | Agreement Interface | An interface for tutor and tutee agree on the time and location of a tutoring session and make confirmation. | Yunjing Liu | 3/19 | 4/02 | Coversation |
|  | Payment Interface | An interface for payment used by both tutors and tutees. | Jie Wang | 3/19 | 4/02 | None |
| Backend | Record Module | When a pair of tutor and tutee make an agreement, this module will record the tutorial event. | Haozhe Wang | 3/19 | 4/02 | Agreement Interface |
|  | Payment Module | In charge of receiving payment request and sending the request to banks or third-party payment platforms. | Rui Zhang | 3/19 | 4/02 | None |
| Security | Security | Ensure the user information is encrypted and ensure the payment safety. | Rui Zhang | 3/19 | 4/02 | None |

## Sprint 4

Sprint 4 will be delivered on April 15th and contain user manual, feedback collection and storing, and tutor class page. Specifically, the use case allows a user to give feedback to a class he attended before, and see the feedback given by other tutees. back given by other tutees.

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| --- | --- | --- | --- | --- | --- | --- |
| Catagory | Task ID | Description | Owner | Start | Finish | Dependencies |
| Frontend | User Manual | A manual given by the developers to make it easier for new users to start with our app. | Jie Wang | 4/03 | 4/13 | None |
|  | User Tutor class page | A class page corresponding to each class in user's profile. | Rui Zhang | 4/03 | 4/13 | None |
| Backend | Give Feedback | A page for user to submit feedback and comment after the class. | Yunjing Liu | 4/03 | 4/13 | None |
|  | Store Feedback | Store the feedback given by user into database. | Haozhe Wang | 4/03 | 4/13 | None |

## System Test

Note because of the limited number of team member, all members are code developers and testers at the same time, which means our member will write their own test cases in the process of writing code.

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| --- | --- | --- | --- | --- |
| Task ID | Description | Owner | Start | Finish |
| Registration Tes | Create several new users from the app side and check whether the info server recorded is right and sufficient or not. | Yunjing Liu,  Jie Wang | 02/22 | 03/04 |
| Profile Building Test | After creating new users, fill out their profile and check whether server have the right information or not. Also, check after user change their profile, the according info is changed or not in the server | Haozhe Wang, Rui Zhang | 02/22 | 03/04 |
| SearchTest | Create several tutoring sessions in the database. Use the app to make a search request for some keyword. See if the server does the query correctly and if the app can show the results correctly. | Rui Zhang | 03/05 | 03/18 |
| Agreement Test | Let a tutee choose a tutoring session from the search results, then start a conversation with the tutor. Let the tutor and the tutee make an agreement on the session. See if the relevant states are correctly updated in the database. | Rui Zhang | 03/19 | 04/02 |
| Feedback Test | Login with different users and give feedback to a certain class. Then check if these users can see each other's feedbacks | Jie Wang | 04/03 | 04/13 |