Deliverable 5
Class Voting System
IS436 Structured Systems Analysis and Design

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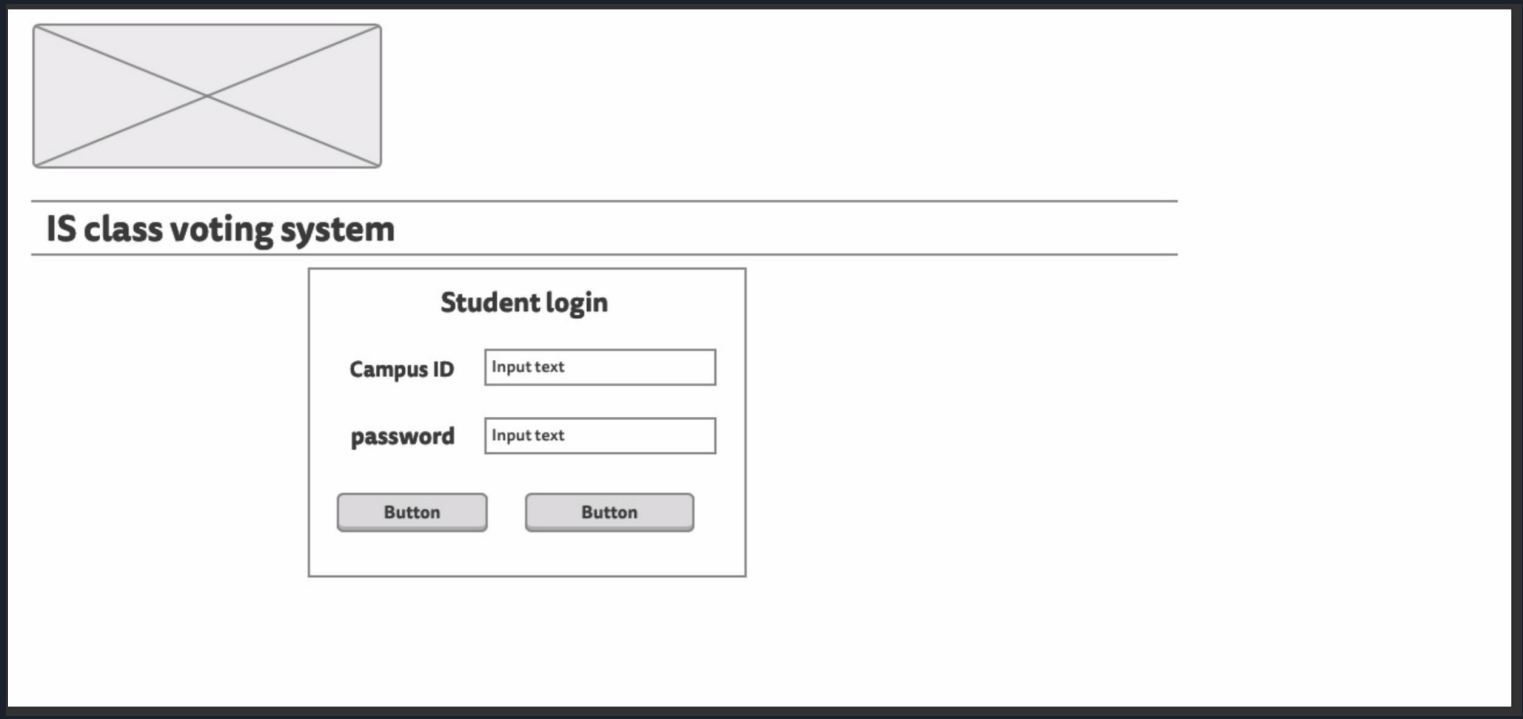
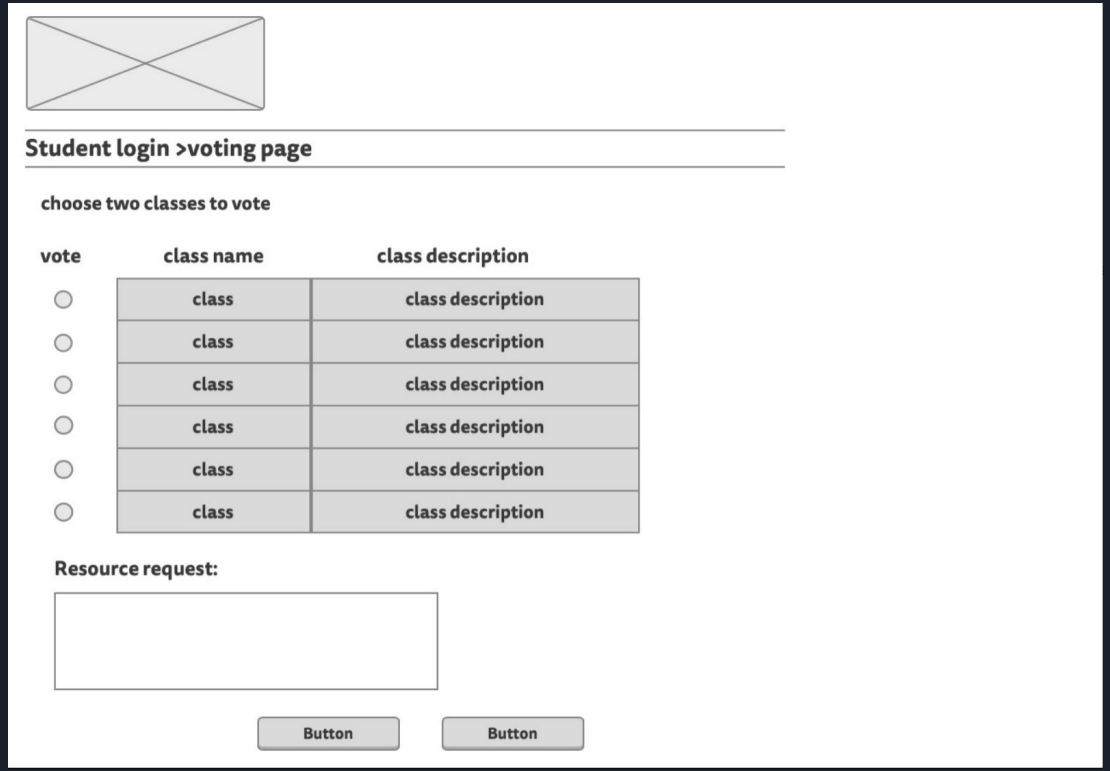
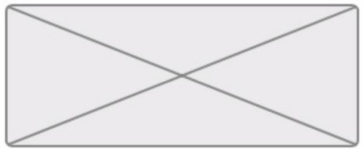
User Interface Design/Wireframe



User Interface Design/Wireframe



User Interface Design/Wireframe



IS class voting system

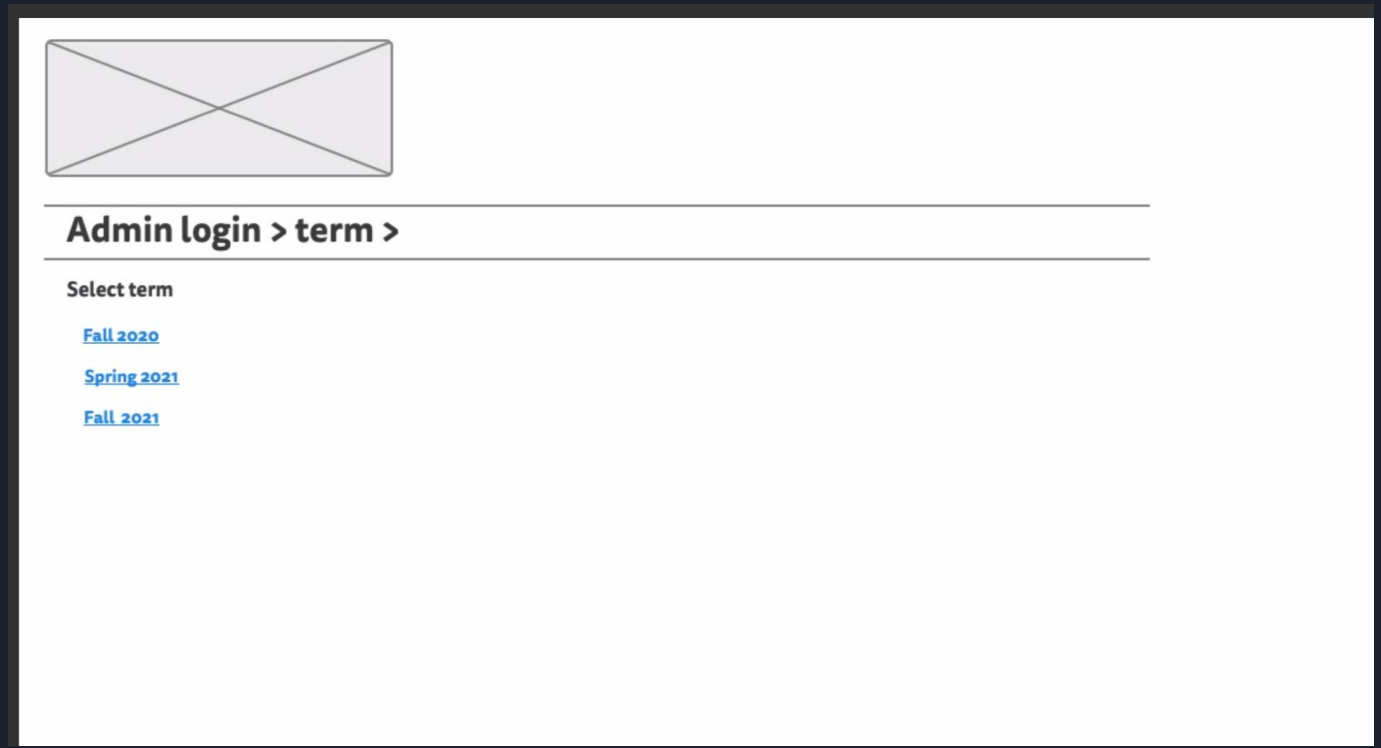
Admin login

Campus ID Input text

password Input text

Button Button

User Interface Design/Wireframe



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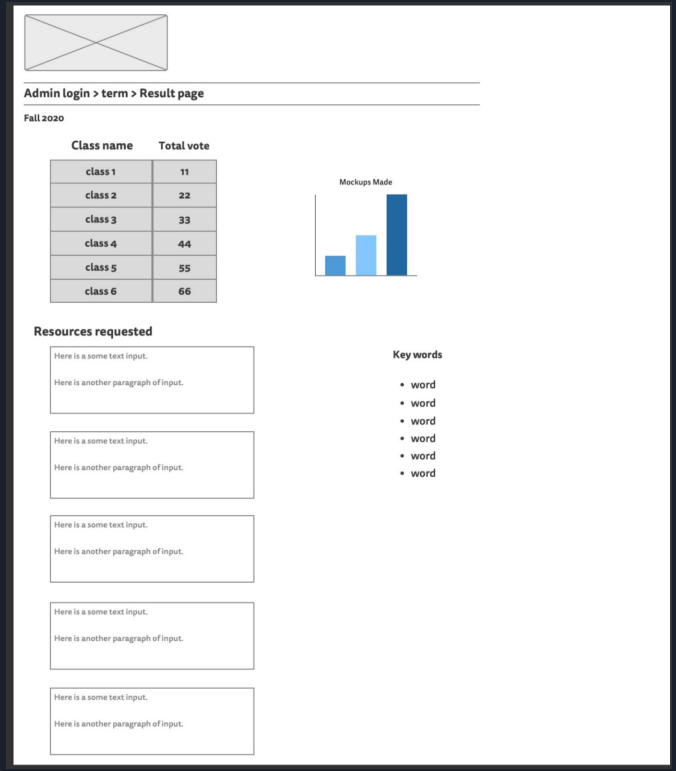
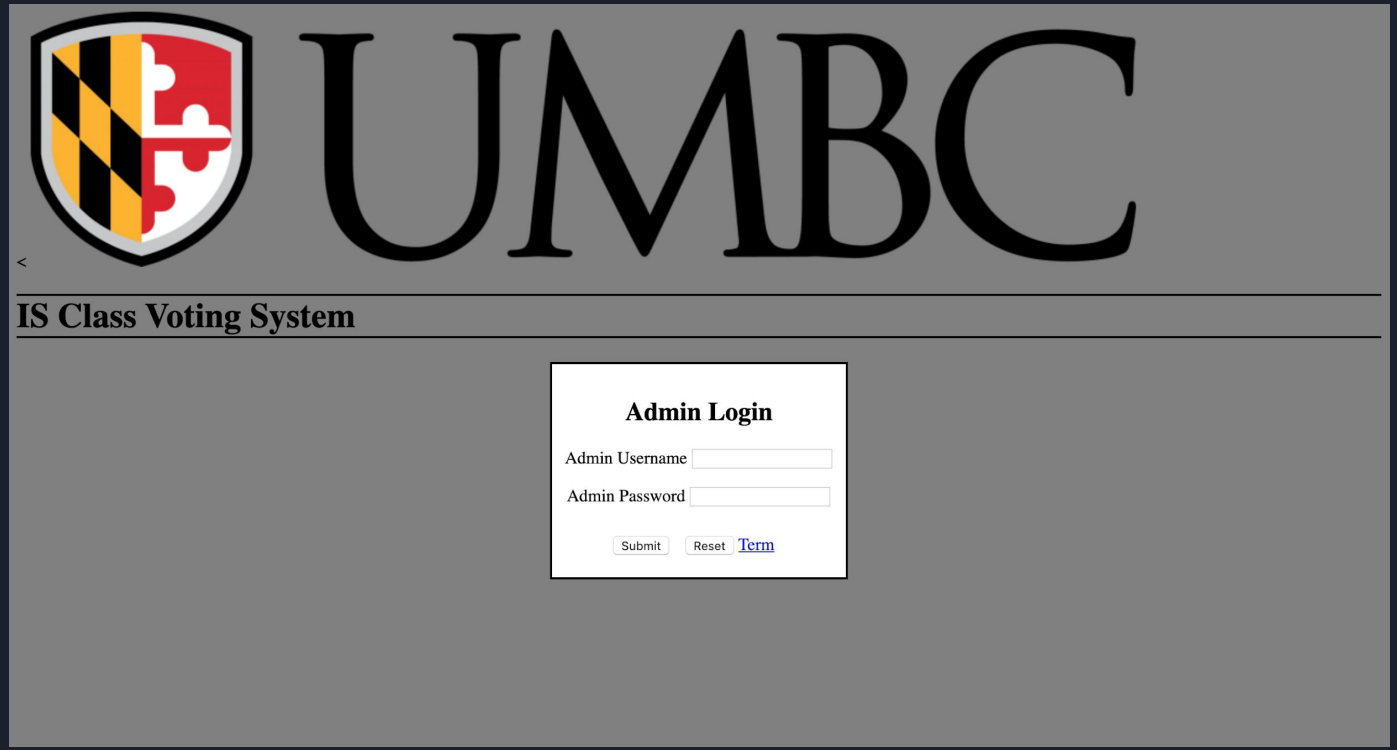
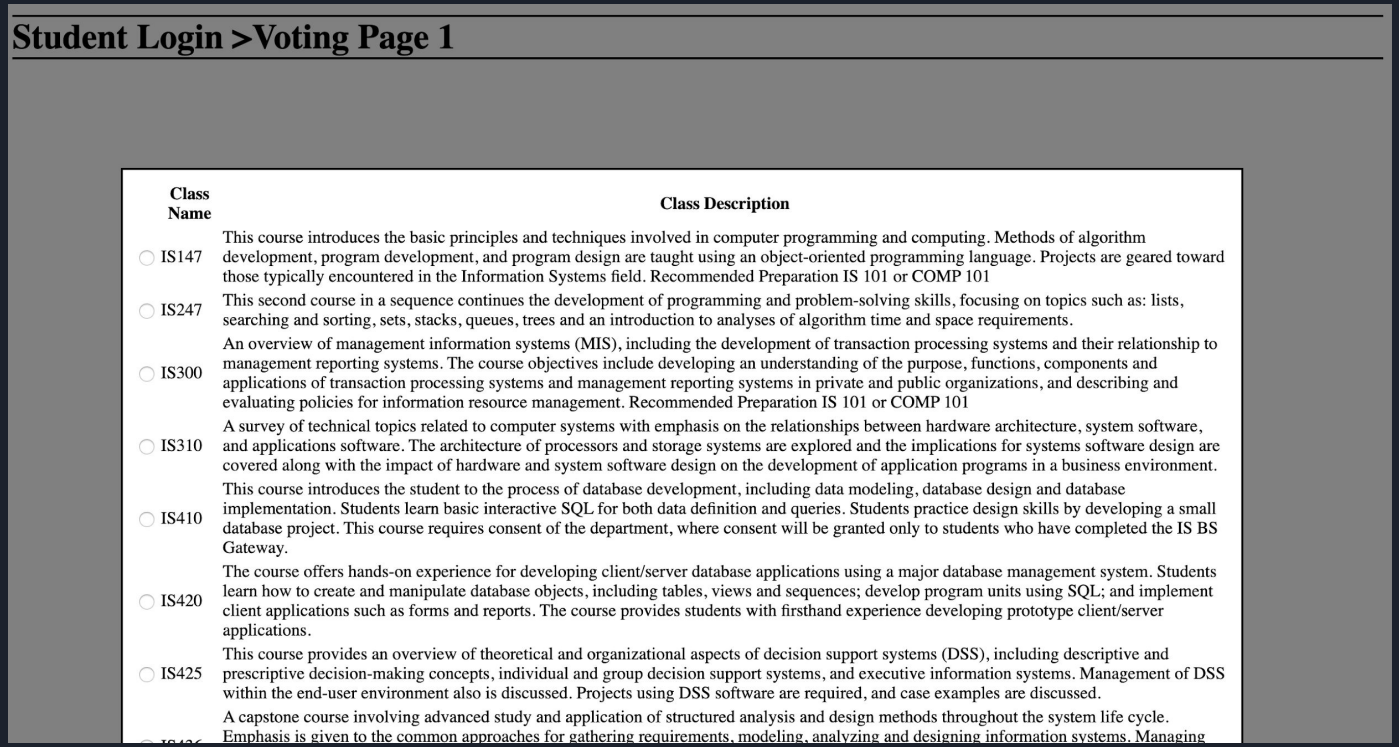


Functional Program



Functional Program



Student Login >Voting Page 1

Class Name	Class Description
IS147	This course introduces the basic principles and techniques involved in computer programming and computing. Methods of algorithm development, program development, and program design are taught using an object-oriented programming language. Projects are geared toward those typically encountered in the Information Systems field. Recommended Preparation IS 101 or COMP 101
IS247	This second course in a sequence continues the development of programming and problem-solving skills, focusing on topics such as: lists, searching and sorting, sets, stacks, queues, trees and an introduction to analyses of algorithm time and space requirements.
IS300	An overview of management information systems (MIS), including the development of transaction processing systems and their relationship to management reporting systems. The course objectives include developing an understanding of the purpose, functions, components and applications of transaction processing systems and management reporting systems in private and public organizations, and describing and evaluating policies for information resource management. Recommended Preparation IS 101 or COMP 101
IS310	A survey of technical topics related to computer systems with emphasis on the relationships between hardware architecture, system software, and applications software. The architecture of processors and storage systems are explored and the implications for systems software design are covered along with the impact of hardware and system software design on the development of application programs in a business environment.
IS410	This course introduces the student to the process of database development, including data modeling, database design and database implementation. Students learn basic interactive SQL for both data definition and queries. Students practice design skills by developing a small database project. This course requires consent of the department, where consent will be granted only to students who have completed the IS BS Gateway.
IS420	The course offers hands-on experience for developing client/server database applications using a major database management system. Students learn how to create and manipulate database objects, including tables, views and sequences; develop program units using SQL; and implement client applications such as forms and reports. The course provides students with firsthand experience developing prototype client/server applications.
IS425	This course provides an overview of theoretical and organizational aspects of decision support systems (DSS), including descriptive and prescriptive decision-making concepts, individual and group decision support systems, and executive information systems. Management of DSS within the end-user environment also is discussed. Projects using DSS software are required, and case examples are discussed.
	A capstone course involving advanced study and application of structured analysis and design methods throughout the system life cycle. Emphasis is given to the common approaches for gathering requirements, modeling, analyzing and designing information systems. Managing

Functional Program

Admin Login > Term > Result Page

Fall 2020

Class Name	Votes
IS147	24
IS247	30
IS300	42
IS310	52
IS410	30
IS420	25
IS425	34
IS436	15
IS450	20
IS451	32

Resources Requested

Keywords

- Microsoft
- Weka
- Adobe
- Amazon

System Requirements

- We plan to run our project on top of Amazon Web services EC2.
- More specifically, we would run our web application on a T3 instance.
- A T3 instance is a burstable general-purpose instance type. This instance provides a baseline of CPU performance with the ability to burst CPU usage at any time for as long as required.
- With this, we can save on costs, and have the resources available if a lot of students use our web application at one. This ultimately provides us a predictable monthly cost.

System Requirements

- 2.5 GHz Intel Scalable Processor
- Intel AVX†, Intel AVX2†, Intel Turbo
- EBS Optimized
- Enhanced Networking†

System Requirements

- We realized that sometimes, our web application may not consistently need high levels of CPU, but can benefit significantly from having full access to very fast CPUs when we need them.
- If the instance needs to run at higher CPU utilization for a prolonged period, it can do so at a flat additional charge of 5 cents per vCPU-hour.
- In terms of Machine Learning software, we will utilize NeuroSolutions product. This will provide us with an algorithm that can efficiently do cluster analysis and extract patterns from the data the students input.

Some Acceptable Requirements

1.1. Interactions between the user and the system should not exceed 2 to 3 seconds.

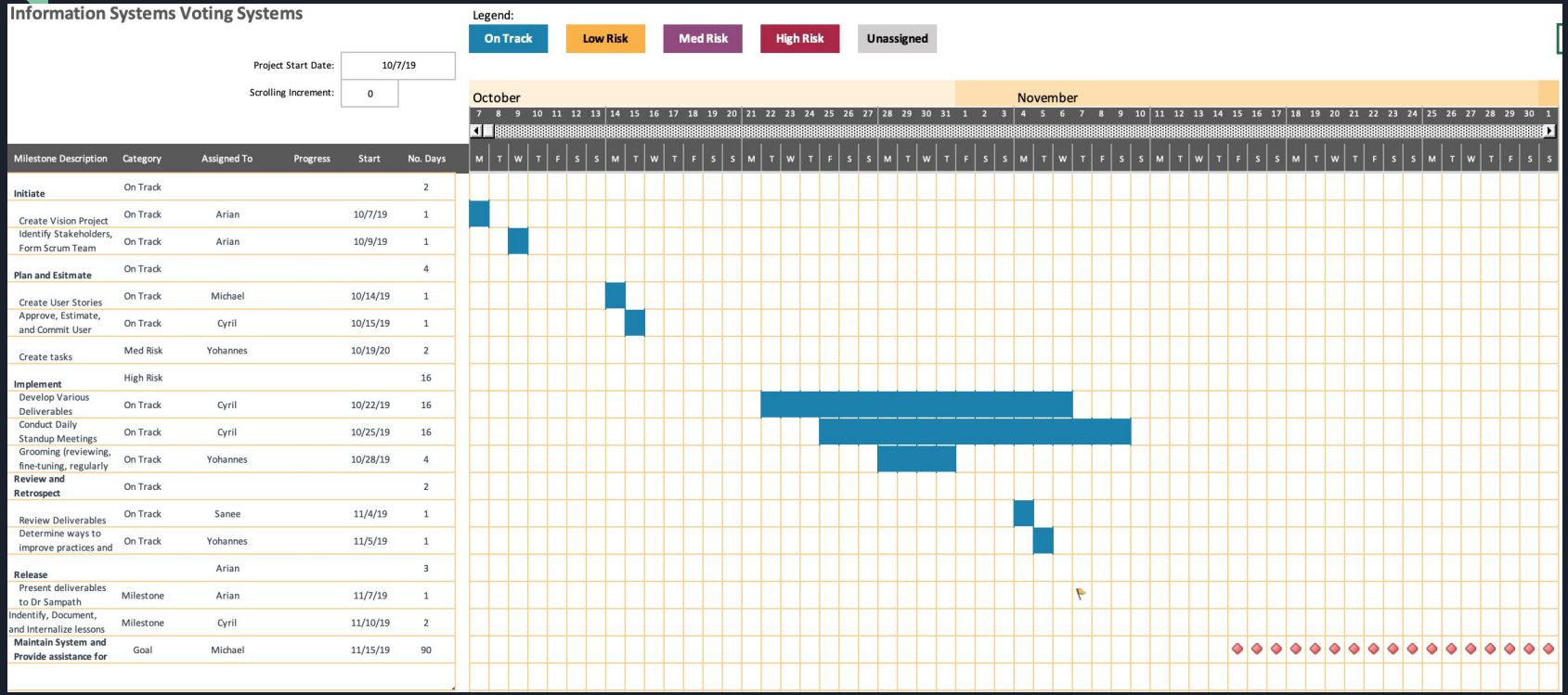
1.2. The system downloads new status parameters instantly. Program should be making changes in real time.

1.3. The system should be available for use 24 hours per day, and however long the department director keeps the voting system online.

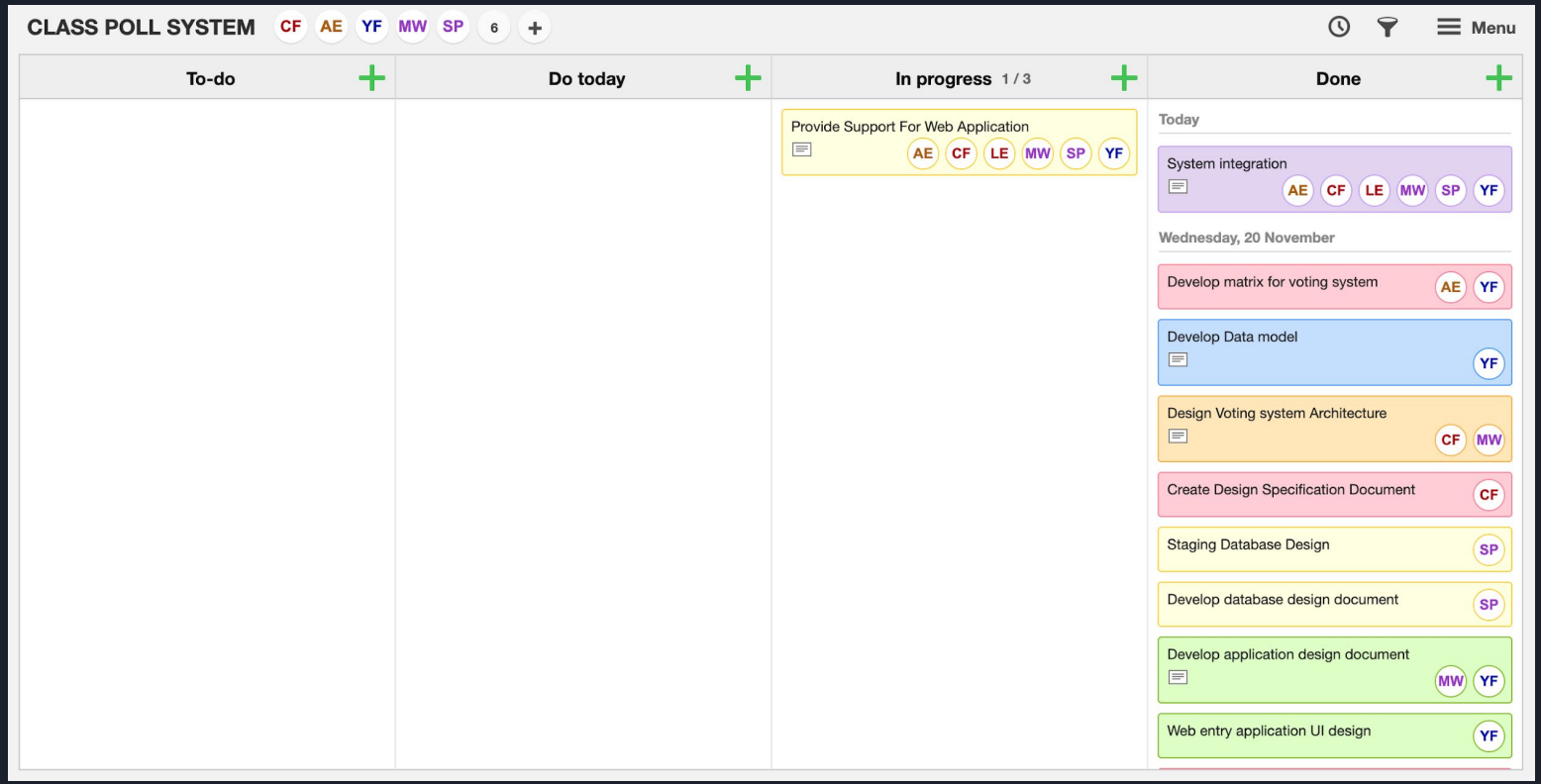
1.4. The system supports 250-300 simultaneous users at a time. If there is a need for more resources, AWS instance will allocate them.

1.5. Usability and proper deployment of web application.

Updated Project Plan



Kanban Board



SDLC Process Experiences

- We learned about the different attributes of the SDLC that had to be revisited, such as the project plan, functional and non-functional requirements.
- The SDLC had certain requirements that had to be met such as what implementation to take whether it be agile, waterfall, iterative or spiral.
- We chose agile for our project for speed of system, but that was after heavy deliberation and weighing the pros and cons did we decide on agile method.
- Overtime, we understood what hosts/system requirements were needed for our project. We also learned about methods for working together so that we can acclimate to the right roles and get situated with getting things done.

SLDC Experiences Continued

- Our challenges come from having to apply changes with feedback from the professor such as comments on our database diagram, data flow diagram and anything of the like as we had to edit an assignment that was perceived to be correct.
- Near the end of deliverables and deadlines we were under more stress than at any other time during our system conception.
- A difficult portion of our project was trying to predict errors or pitfalls in our project so that we could plan ahead for it.
- We understood what our web application will ultimately be hosted on/ developed with