Product Backlog

Black Box

Personas

Professors

<u>Dr. Warble Garble</u>
Age 50 - Female
- Speaks English and Chinese
- Intense Personality, tends to overreact to most problematic situations
- Worked at University of Toronto for 10 years in the Stats department as an Assistant Professor
- Passion for teaching and statistical consulting
- Worries about students learning, lecture quality and the quality of the resources used to teach
- Uses blackboard to post assignments and notes, and any other essential details like due dates
- Has been collecting data on students marks over the past few years
- Likes to post the students performance through the course to help them underline what topic/concepts they are struggling
- Cannot handle complex software, needs external help if required
- Likes to work with software that can be used intuitively
- Likes to create assignments by hand, and then scan them to upload them online
- Skilled at analyzing data and teaching without software
- Likes creating new and creative ways to teach students
- Likes to provide feedback to students about their accomplishments or mistakes
- Tends to create multiple sets of problems to increase individual effort put into problems by students
- Frequently holds office hours after lectures, or some time in afternoons

<u>Dr. Chizzywick D'Croeinstein</u>
Age 36 – Male
- Proficient in programming, and using complex software
- Assistant Professor in Mathematics and Statistics
- Has previously worked at IBM as a System Analyst
- Prefers using keyboard shortcuts to perform tasks
- Likes to have a group forum for classes so they can set up an interactive chat for collaborating
- Likes to monitor students' performance to check how well he is teaching the course
- Likes to post assignments and solutions on BlackBoard
- Likes to use complex software that provides more features and benefits
- Likes to create assignments on the computer by using detailed text editor software called latex
- Likes to post notes online to ensure students that have missed class can catch up
- Likes to monitor the forum and actively checks the post for questions and concerns
- Uses various technologies such as Latex, Piazza, Git, class website, and Grademywork

Students

Alex Mai
Age 18 – Male
- Likes to use online resources (Wikipedia, YouTube, and Google)
- Student majoring in computer science, minoring in stats and in humanities
- Likes to study right after lectures, and work on assignments immediately
- Worries about if his assignments have mistakes in them
- Prefers working in groups when study
- Skilled at programming in Assembly and Turing
- Very dependent on questions to help himself with understanding the concepts
- Likes to go to office hours one in a while for questions because professors take too long to respond via email
- Likes to study questions that are similar to previous exams
- Likes to be anonymous on class forms like piazza (and is able to use LaTex)
- Likes immediate responses and feedback from professors
- Checks notifications constantly, uses apps like blackboard/google classroom to stay updated on class work
- Prefers convenience when working or studying for a class
    - Likes typing notes, dislikes writing notes by hand
    - To be able to work and study without the need of carrying a lot of books

Pompous Perry
Age 30 - Male
- Uses the new MacBook pro and has proficiency with Final cut pro
- Likes to remain within the apple ecosystem so that everything can be synced
- Majoring In computer science, with a minor in Visual Arts
- Avidly responds to piazza posts
- Dependent on online resources and uses R to do statistical analysis
- Uses Khan Academy to learn course material instead of going to every lecture
- Likes to do warm-up/sample questions before lectures or before starting assignments
- Uses facebook group chat to communicate with classmates and share notes
- Contacts the professor for a lot for clarification on lecture material
- Constantly checks grades
- Prefers receiving feedback from professor as soon as possible
- Likes to print out lecture notes and assignments so that he can add his own additions to them
- Skilled at note taking, staying organized and staying up to date on tasks

Pablo Escobar
Age 25 – Male
- Terrible at speaking/writing English but proficient at speaking and writing Spanish
- Likes to work offline so that he can work while he is on the bus
- Prefers to write everything by hand because he likes keeping physical copies of everything in his binder
- Wants to have everything graded with feedback immediately if possible
- Bad with technology but he can use straightforward applications as long as they have a useful purpose
- Likes to do questions repeatedly until he has an understanding of the concepts needed to solve them
- Prefers to work in isolation with a bare minimum of internet connection to avoid distraction
- Relies on notes taken in class instead of online resources
- Majoring in International Development with a minor in management
- Not a good researcher as he never liked using online search engines to find information
- Hates inaccurate information so he does not use much online resources that are not credited
- Websites that he uses on daily basis consist of Blackboard and Piazza

User Stories

First sprint user stories:

- As a Prof, I would like to login to WebWork so that I can access all the tools necessary
  - Tasks:
  - Create Login Interface so that the prof can login to the applicaiton (~2 Points)
  - Create Database to store the Prof info and all the info of the students (~3 Points)
  - Set up a way to prompt when the login info is wrong (~1 Point)
  - Description: Allow the prof to login to the app and display all the functions that the prof can access once inside the Prof terminal, if he/she enters wrong login credentials, notify them in a clear way.

- As a Prof, I would like to add students to WebWork so that they can participate.
  - Tasks:
  - Create a page for inputting information for the students (~2 Points)
  - Create a button to upload the inputted information to the database. (~1 Points)
  - Dependencies: Database (User story 1, Task 2)

  - Description: Give a prof functionality to add students into the list of students currently participating in the Webwork assignments (with a specific user ID followed by their student number as password)

- As a Prof, I like to upload some course notes so the students can remain on top of their work
    - Tasks:
    - Upload button to add file from computer (~2 Points)
    - Display files that have been added in the U.I (~4 Points)
    - Dependencies: Database (User story 1, Task 2)
    - Description: Create a page where students can view the lecture slides in a clear manner. (Optional: allow them to download the notes)
- As a Prof, I would like to be able to post announcements and pin reminder when needed.
    - Tasks:
    - Create a field to input announcement info and add it to a list of announcements, with the option of making it visible to prof and all the students. (~3 Points)
    - Create a function to update the board. (~2 Points)
    - Dependencies: Database (User story 1, Task 2)
    - Description: A homepage screen where students can view what has been posted along with previous announcements and pinned reminders
- As a Prof, I would like to create and edit problem sets.
    - Create an upload problem set button that will allow file system to upload a file (~3 Points)
    - Have a 'download file' system to be able to download the file and edit anything that needs to be changed and then re-upload it (~3 Points)
    - Able to enable/disable the visibility of the file when changes need to be made.(~3 Points)
    - Dependency: U.I interface (User story 3, Task1)
    - Description: User-friendly and intuitive interface to make changes to problem sets.(Optional: Incorporate a text editor to make problem sets directly in the app)

Remaining user stories

As a Prof, I would like to provide students with individualized versions of problems so that the students learn the process of solving a problem and they don't just memorize one specific problem.

As a Prof, I would like to give students their performance information.

As a Prof, I would like to provide students with immediate feedbacks so that they can assess their performance and change their studying accordingly.

As a Prof, I would like to see the average assignment scores of all students so that I can decide whether or not the work I give out needs to be adjusted to be harder or easier.

As a student, I would like to print the assignment so that I can physically work on it.

As a student, I like to have a live chat session with the prof as I will be able to talk to the prof for help when I can't attend their office hours physically.

As a student, I would like to be able to finalize my answers before submitting.

As a student, I would like to make infinite trials until the homework due date.

As a student, I would like to submit my answers to receive the immediate feedback

As a student, I would like my work be automatically graded.

As a student, I would like to view feedback from the prof so that I can know how I should go about improving my knowledge of the course material.

As a Prof, I would like to set a up due date.

As a Prof, I would like to Hide/Unhide problem sets from students and TA's

As a student, I like to have a way to access lecture slides/notes easily.

As a student, I would like to receive individualized versions of problems so that I can learn how to solve variations of problems of a similar type.

As a student, I would like to see some sample questions to get familiar with the topics that will be tested on

As a student, I like to have a practice section along side with the assigned questions to do some warm up.

As a student, I would like to download a hard copy of the problem sets so that I can work offline.

As a student, I like to have a live chat session with the class as we can help each other with understanding concepts.

As a Prof, I would like to view student progress.

As a student, I like to see my current grade in this course.

As a student, I like to study in a group where I can upload my notes to the group and ask where I did wrong on the question.

As a student, I like to do have a place to share each other notes to help each other out with the topic/concept with the class.

As a student, I like to receive some notification to remind me about what needs to be completed for online evaluation.