EECS 2311

Software Development Project

January 9, 2018

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Our project

- Treasure Box Braille (TBB) is a device that helps kids learn how to read Braille

- TBB presents Braille characters/words to the user who then responds by pressing buttons

- Educators can load different scenarios to teach different letters and keep the kids entertained

- We will write a piece of software to help educators create these scenarios. We will call it the Authoring App

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Authoring App

- The Authoring app will provide facilities to
  - Create the flow of the scenario (ask questions, receive answers)
  - Record audio
  - Save the scenario in the appropriate format
  - Test the scenario using the provided software

- **Important requirement**: The Authoring App must be usable by visually-impaired users (more on this next week)

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Starter software

- Since there are not enough TBBs for each group (and also because they are expensive and hard to replace), we provide software that simulates the TBB

- This way, as an educator is preparing a scenario with your authoring app, they can try it out to see if it works

- Our task today is to get this starter software and familiarize ourselves with it

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Intentionally vague requirements

- In a real software development project, requirements are vague and ever-changing

- The exact requirements will be refined iteratively by interacting with the "customer" on an ongoing basis

- Some requirements may change after the project has started

- New requirements may be added after the project has started

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Workload

- This course requires 8-10 hours per week per student

- Have to start working immediately

- In the second part of each lecture, there will be time to present your progress to the "customer" and ask questions

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Evaluation

- 10% - Lab tasks completed

- 25% - Midterm submission (due Feb 23)

- 65% - Final submission (due April 5)

- Each group submission will receive a grade based on its merit. Individual grades may be less if full participation has not been demonstrated.

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Groups

- Groups are assigned randomly by the "manager"

- As enrollment in the course changes in the first few weeks, the "manager" will rearrange the groups

- Same as a real software project!

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Class "exercise": Find your group

- Login to the EECS 2311 page on Moodle (use your Passport York credentials)

- Find your group number

- Go to that number in the classroom to find your teammates

- Introduce yourselves and exchange contact information

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To get started

- Read up on Braille online to become familiar with it

- Review Swing and event-driven programming

- Setup your team's github repository and make sure every team member can push / pull

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All team members

- Go to github.com and sign up for an account

- If you already have a github account, you can use it for the course

- However, if your existing github account has a username that has nothing to do with your name, you might want to create another account for the course

- **Your participation in the project will be assessed based on your github activity!**

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Once per group

- Sign in to your github account

- Navigate to https://github.com/biltzerpos/enamel/

- Click on **Fork**

- This will create a repository called enamel for your account

- Click on Settings and rename the repository to something different

- Click on Settings -> Collaborators and add the remaining team members as collaborators

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All team members

- Open Eclipse

- Go to Window -> Preferences -> Team -> Git -> Configuration

- Click Add Entry, add the pair [user.name, yourname]

- Click Add Entry, add the pair [user.email, youremail]

- These should be the same as the ones used at github.com

- Click Apply, then OK

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All team members

- Go to File -> Import -> Git -> Projects from Git

- Click Next, select Clone URI, click Next

- Copy the URL of your repository from github.com on the URI field

- Keep clicking Next, and finally Finish

- You now have a copy of the project in your local repository

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Push

- Make some changes to any of the classes in the project

- Rightclick on any element that has changes (could be the whole project), and select Team -> Commit

- Add a commit message

- If you do not want to publish the changes yet, click Commit

- If they are ready to be published, click Commit and Push

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Pull

- To get changes published by other team members, rightclick on the project, and select Team -> Pull

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Lab Task

- Get git working for every team member

- This should be for code / documents / notes etc.

- Demonstrate that everybody can pull / push code on Monday's lab

- Spend the rest of your time familiarizing yourselves with the starter code

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