Blueatt

Team 35 - Spring 1 Overview

Justin Boudreau, Michael Enright, Moon Sun Hwang, Shulin Ye

Sprint Overview

We will focus on getting the Instructor side of functionalities work, including the desktop software and its user interface, bluetooth scanner and how they interact.

Scrum Master: Justin Boudreau
Meeting plan: Sundays & Wednesdays: 6-9pm

Risks and Challenges

Our group has a lot of work to get done in this sprint in order to ensure that we finish the project on time. With that being said it is easy to fall behind on the work and not complete the desired tasks for sprint 1 leaving us at a disadvantage for sprint 2 and 3. We also need to figure out how to get the bluetooth scanner to interact with our software as none of us have any experience with bluetooth.

Current Sprint Detail

User Story #1

As an instructor, I would like to store student's information in the software

#	Description	Time	Owner
1	Convert roster input to database accepted query	7	Justin
2	Insert student information from roster to database	3	Justin
3	Create UI to selected input file	3	Michael

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given the roster input, the database would output to a flile that fits the requirements of the database.
2. Given the generated query, use the database to read and check if the result is right.
3. Given the correct functionality tested by the first steps, build the user interface and use it to test again the previous functionalities and ensure that it's working.

User Story #2
As an instructor, I would like to get a reading of a student's attendance on a specific date

#	Description	Time	Owner
1	Allow selection of a course and create database query to pull roster	3	Michael
2	Create UI to select student's Purdue username to check attendance	5	Michael
3	Create query to pull attendance from specific date in a certain class in the database	2	Justin
4	Have information displayed in the UI	2	Michael

Time for Unit Testing: 2 hour

Acceptance Criteria:
1. Given the input of a course wanted, search in the database and see if the result is correct.
2. Given the the student's username, see if the program outputs the correct attendance record.
3. Given the date, check if the output of the attendance of the class is correct.
4. Given the functionally correct output, check if the user interface displays it correctly.

User Story #3
As an instructor, I would like to select which class is in session

#	Description	Time	Owner
1	Select class from the UI	2	Shulin
2	Pull class roster from the database	2	Shulin
3	Start scanning and recording devices in a queue	2	Justin
4	Check scanned devices with roster and record	2	Michael

Time for Unit Testing: 2 hour

Acceptance Criteria:
1. Given the desired class, choose from UI and see if it shows the correct result.
2. Given the class, see if it can pull the correct roster from the database.
3. Given the bluetooth devices, see if the scanner scan all of them in a correct order.
4. Given correct-scanned input, see if that matches to the existing roster.

User Story #4

As an instructor, I would like to connect the scanner to a computer quickly

#	Description	Time	Owner
1	Figure out how scanner works	1	Moon
2	Code to make scanner interact with desktop software	5	Shulin

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given a scanner, check if it connects to the computer correctly.
2. Given a scanner, check if it gets the correct result for bluetooth devices.
3. Given the software with the scanner, see if the request of the software gets correctly executed by the scanner.

User Story #5

As an instructor, I would like to select the intervals to periodically check for bluetooth signals

#	Description	Time	Owner
1	Create UI to select timing intervals	3	Moon
2	Procedures to start scanning for bluetooth devices	4	Shulin
3	Check for successful scan and check with roster	2	Michael

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given the requirement for the time intervals, see if the user interface generates the correct result.
2. Given the scanner and software, see if it can start scanner quickly and correctly.
3. Given the correct scanning result, check if it matches with the roster.

User Story #6

As an instructor, I would like to view the percentage of attendance of each lecture

#	Description	Time	Owner
1	Create UI to allow instructor to select course and date	6	Moon
2	Pull roster's record from the database	3	Shulin
3	Interpret database records and calculate percentages	3	Moon

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given course and data information, see if the instructor can use the user interface to select them correctly.
2. Given the desired record, check if you can get correct match from the roster in the database.
3. Given the database records, to see if the calculated result is correct.

User Story #7

As an instructor, I would like to select the way to get the information, such as emails or instant report

#	Description	Time	Owner
1	Create UI to allow instructor to select option	3	Michael
2	Implement options to route information to correct location	5	Shulin

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given the instructor's choice, the software handles his request properly
2. Given there is information to send, it is sent to the selected location
3. Given the instructor receives the information, it is correct (same as it was sent)

User Story #8

As an instructor, I would like to view the tendency of a students' attendance during the semester graphically

#	Description	Time	Owner
1	Create UI to select class and get attendance report	6	Justin
2	Create query to pull information from the database	2	Justin
3	Use database information to create semester attendance stats	3	Moon
4	Create UI to display students' attendance throughout the semester	5	Michael

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given the instructor requests information from the database it is correct
2. Given the attendance for the semester the statistics are created properly
3. Given the attendance statistics they are displayed well in the UI

User Story #9

As an instructor, I would like to get notifications on if the scan is successful or not (2)

#	Description	Time	Owner
1	When devices scans, give feedback to user	3	Moon
2	If scan times out give instructor option to rescan	2	Shulin

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given the scan request, see if it shows the correct notifications of the result of the scanning.
2. Given the scan request, see if notification shows correctly, if it takes 5 minutes or more to scan.
3. Given the scan request, see if the option to retry shows correctly.

User Story #10

As an instructor, I would like to only receive information on students in the class (5)

#	Description	Time	Owner
1	Before/After (TBD) scanning query database to receive students' device IDs in the class	2	Justin
2	Compare scanned devices with the devices register with the class	5	Michael
3	Record attendance with database query of present devices and ignore others	4	Justin

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given the roster was uploaded correctly, when the scanning is started the database will return device ID's of only those in the class
2. Given an instructor has uploaded the correct roster, when the scanner starts the database will compare devices scanned in the room to those in the roster.
3. Given the database can filter out the students that are not in the roster, when the attendance is recorded it will only contain those who are in the course

User Story #11

As an instructor, I would like to manually add/delete/modify student's attendance (12)

#	Description	Time	Owner
1	Create UI for instructor to select class and then select add/delete/modify student's attendance for a specific date	5	Moon
2	Create database query based on the instructor's input to edit database records	4	Michael
3	Create status update message to be displayed	2	Moon

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given the UI is correctly implemented, the professor will be able to select a date and student to modify when needing to update the record.
2. Given the UI is correctly implemented, the program can take input from the UI and query the database when the professor needs to update the record

3. Given that the database works correctly, the program will output a notification regarding the success or failure when the professor makes an update

User Story #12
As an instructor, I would like to be able to add or remove a student from a class (5)

#	Description	Time	Owner
1	Create UI for instructor to select student to be added or removed, double checking if removed is selected as it will delete all records	4	Shulin
2	Create database query to add or remove student, if remove is chosen then delete students records for the class also	3	Michael
3	Create status update message and/or updated roster	3	Moon

Time for Unit Testing: 2 hour

Acceptance Criteria:
1. Given the UI is correctly implemented, the professor will be able to select a student to modify when needing to update the record.
2. Given the UI is correctly implemented, the program can take input from the UI and query the database when the professor needs to update the record
3. Given that the database works correctly, the program will output a notification regarding the success or failure when the professor makes an update

User Story #13
As an instructor, I would like to be able to edit student's information if necessary (5)

#	Description	Time	Owner
1	Create UI for instructor to select student's information to be edited and how it will be edited on a specific date.	5	Shulin
2	Create query to update database based on instructor's input	4	Justin
3	Create status update message to be displayed	3	Shulin

Time for Unit Testing: 2 hour

Acceptance Criteria:

1. Given the UI is correctly implemented, the professor will be able to select a student to modify when needing to update the record.
2. Given the UI is correctly implemented, the program can take input from the UI and query the database when the professor needs to update the record
3. Given that the database works correctly, the program will output a notification regarding the success or failure when the professor makes an update

User Story #14
If time permits, as an instructor, I would like to allow software to scan automatically at a given time everyday

#	Description	Time	Owner
1	Create UI to allow instructor to select a class to have scanned for attendance automatically	4	Justin
2	Implement process to start scanning if connected to bluetooth scanner based on time and date	8	Moon
3	Follow usual process of comparing roster's devices with scanned devices and send query to database	2	Shulin

Time for Unit Testing: 2 hour

Acceptance Criteria:
1. Given the UI works correctly, when the professor wants to schedule a class, they can select a time to regularly scan for devices.
2. Given the scheduling works correctly, the instructor will not have to start the scanning manually when teaching a course
3. Given the scheduling system works correctly, only students who are registered in the course will be recorded as if the system was started manually when recording attendance.

Backlog

1. ~~As an instructor, I would like to store student's information in the software~~
2. ~~As an instructor, I would like to get a quick reading of student attendance~~
3. ~~As an instructor, I would like to select which class is in session~~
4. ~~As an instructor, I would like to connect the scanner to a computer quickly~~
5. ~~As an instructor, I would like to select the intervals to periodically check for bluetooth signals~~
6. ~~As an instructor, I would like to view the percentage of attendance of each lecture~~

7. ~~As an instructor, I would like to select the way to get the information, such as emails or instant report~~
8. ~~As an instructor, I would like to view the tendency of a student's attendance during the semester graphically~~
9. ~~As an instructor, I would like to get notifications on if the scan is successful or not~~
10. ~~As an instructor, I would like to only receive information on students in the class~~
11. ~~As an instructor, I would like to manually add/delete/modify student's attendance~~
12. ~~As an instructor, I would like to be able to add or remove a student from a class~~
13. ~~As an instructor, I would like to be able to edit student's information if necessary~~
14. ~~If time permits, as an instructor, I would like to allow software to scan automatically at a given time everyday~~
15. ~~As a student, I would like to use general bluetooth devices to connect to the scanner~~
16. As a student, I would like to have my attendance taken just by bringing bluetooth device
17. As a student, I would like to register my bluetooth device for my Purdue username via phone app
18. As a student, I would like to register a new device to my same Purdue username if I get a new device
19. As a student, I would like to receive a notification that my attendance has been recorded
20. As a student, I would like to, see my attendance trends and historical data
21. If time permits, as a student, I would like to use fingerprint as authentication of attendance
22. If time permits, as a student, I would like to create app that turns on bluetooth based on time and location
23. As a developer, I would like to get user feedback
24. As a developer, I would like to store student information securely
25. If time permits, as a developer, I would like to handle troubleshooting