



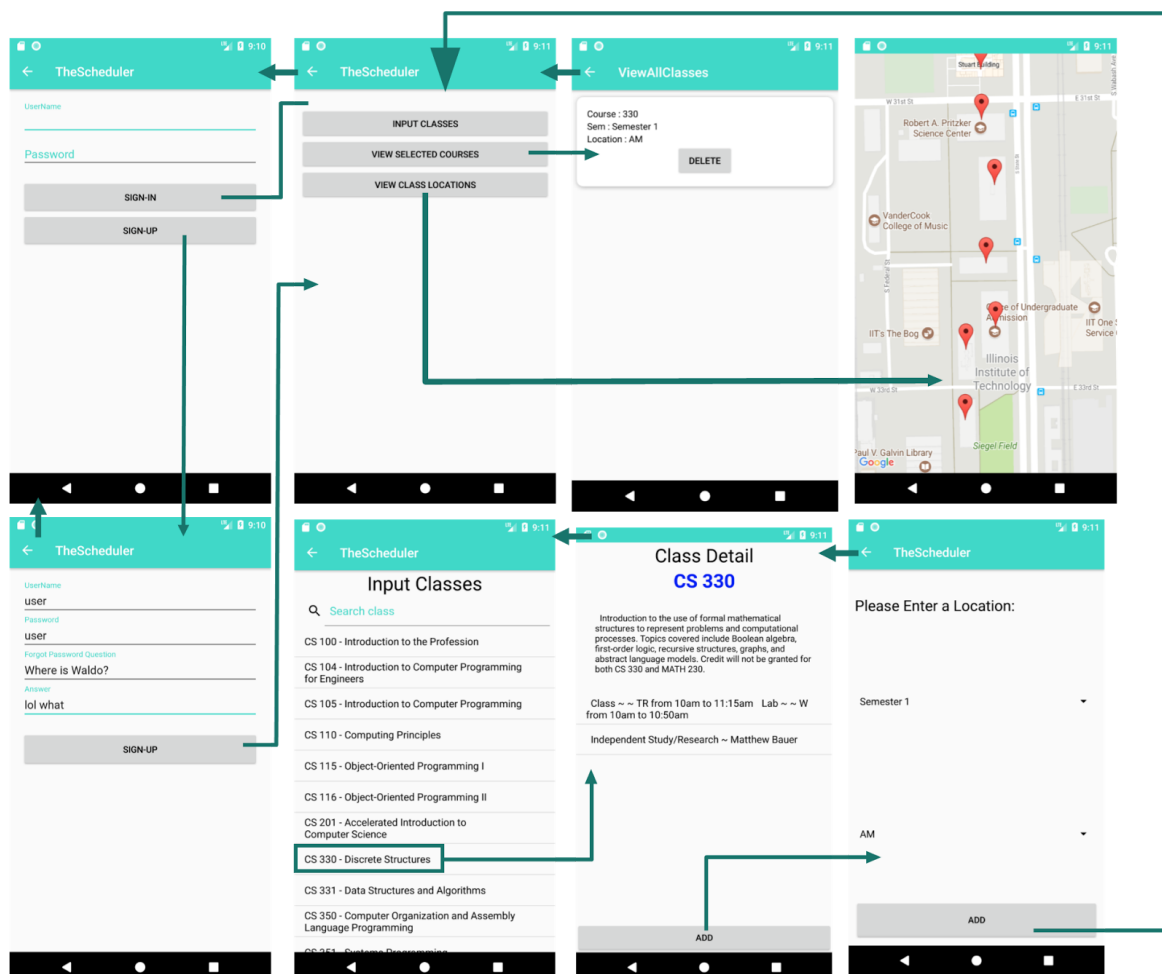
Course Scheduler

Team 1: Markiyan Varhola, Fatima Azfar, Srajan R S, Jiarui Jiang

Explanation:

Planning courses for Illinois Tech SC students requires the use of several resources; the advisors, degree works, and the course registration page. We seek to make this process easier by making an app that will help students design their future and current schedules, and navigate the campus through a location service.

Updated GUI Transition Diagram:





```
graph TD; CourseData([Course Data]) --> InputClasses([Input Classes]); InputClasses --> Dashboard([Dashboard]); InputClasses --> CourseDetailData([Course Detail Data]); AddCourse([Add Course]) --> Dashboard; Dashboard --> ViewLocations([View Locations]); Dashboard --> ViewSchedule([View Schedule]); Dashboard --> AddLocation([Add Location]); ViewLocations --> GoogleMap([Google Map]); ViewSchedule --> DeleteCourse([Delete Course]); AddLocation --> CourseDetailData; LogIn([Log In]) --> Dashboard; SignUp([Sign Up]) --> Dashboard; AppDownload[Course Scheduler App Download] --> SignUp;
```

Features:

- ### Requirements:

- Course List (for CS Undergrad)
- Course details and metadata
 - Professor Names, CRnumbers, Locations, Summaries, Links to course evaluation/syllabus
- SQL Database
 - Courses, usernames, passwords
- Location setter and viewer for courses with google maps api



Individual Contributions By Team Member:

Markiyan Varhola:

- Created base activities and layouts for further development.
- Implemented activity transitions with data communication between activities
- Implemented UI components with accessibility in mind
- Integrated user data saving with local database
- Gathered location information and implemented the class location map
- Fixed critical bugs and debugged components

Srajan R S

- Created version control system (git) repository and base project to work on
- Created Database and DAO methods for saving and retrieving data
- Oversaw App functionality flow
- Implemented CardView and RecyclerView to improve UI
- Implemented single sign-in functionality for login screen
- Debugged database and data saving methods
- Implemented functionality for activities and device interaction
- Created base activities and layouts for further development
- Beautified app elements and features

Jiarui Jiang:

- Collected initial rough Computer Science course data from the official Illinois Tech Website.
- Used collected data to make a graphic user interface page that displays a list of courses to the student with an efficient search view.
- After student clicks on each individual course, used data collected from Fatima to form the course detail page, which displays the course description and detailed info.

Fatima Azfar

- Gathered raw data from my.iit.edu, pop.weclarify, course information on the iit main website, and from undergraduate bulletin for all Computer Science Courses available at Illinois Tech.
- Organized data into useable components.
- Imported organized data into Android application by parsing into a double array of strings.
- Completed documentation of final GUI transition document
- Completed documentation of final user guide



Course Scheduler App

User Guide

Version 1.0 | December 1st, 2017



User Guide

Welcome to the user guide for the Android application Course Scheduler, created by Team 1 in CS442. Below is the table of contents for this guide.

Table of Contents

- 1 Introduction
- 2 Installation and Login
- 3 Application Usage Overview
- 4 Specific Case Usage
- 5 Courses
- 6 Demo
- 7 Contact Us
- 8 Data Source
- 9 Questions about the Course Scheduler
- 10 About this User Guide



1 Introduction

The Course Scheduler App has been created in order to aid your course application and scheduling process, making it a more efficient and organized task. After installing the Android mobile Course Scheduler Application, you will have the ability to:

- Login or sign up to a personal student account
- Review a list of all undergraduate Computer Science courses
- Review detailed information for each of the courses in the list
- Add and remove courses from a schedule
- Add a location on campus to a course
- View all locations for courses on an integrated google map's service

2 Installation and Login

Prior to downloading the Course Scheduler app, please be sure that you have google play downloaded. Certain aspects of the application will not display appropriately without google play services. After installing the application and opened, it will ask for a login password, and includes a sign up button on the bottom, see figure 1.

Click sign up on to set up a login account for your app. Once you click on sign up, you will be required to enter the following information to login Refer to Figure 2:

- **Username and Password:** Enter your desired username, preferably appropriate. Enter and memorize your password.
 - *Ensure your password follows basic secure conventions; do not use a variation of your username, or a variation of the word "password" as your passcode. Learn how to write a secure password here: wikihow.com/Create-a-Secure-Password*
- **Forgot Password Question:** Include an easy to remember personal question
- **Forgot Password Answer:** Include an answer to the above question

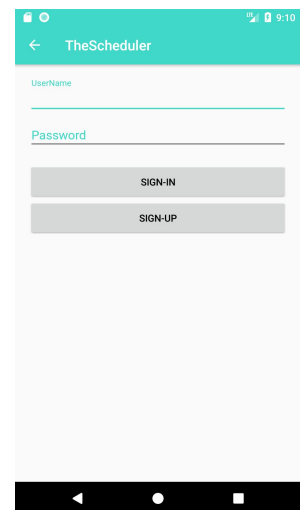


Figure 1

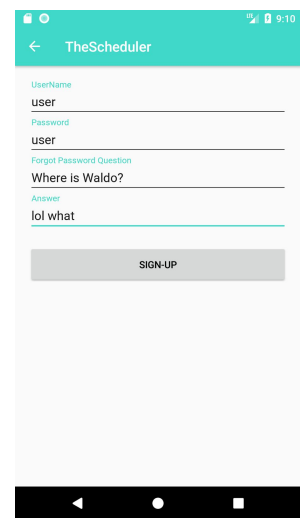


Figure 2



3 Application Usage Overview

Once logged in, you will be able to see a dashboard screen. You can access several Course Scheduler Android Mobile App options from the dashboard. See Figure 3. From this page you can:

- Access the List of Classes to input in your schedule via “*Input Classes*” button
- Access schedule via “*View Selected Courses*” button
- Access Google Maps view of locations of selected course via “*View Class Location*”
- Go Back to Login page by clicking back arrow on the top left corner of the page, or by using the Android built-in back button on the bottom left corner.

We will go through each button from the dashboard in Figure 3 in the following sections.

4 Input Classes

Clicking on the “*Input Classes*” button in the dashboard seen in Figure 3 will lead you to the list of courses in Figure 4. This *Input Classes* screen displays all the undergraduate Computer Science courses for Illinois Tech students. From here, you can go back to the dashboard by clicking the back button on the upper left hand corner, or the built in android back button in the bottom left hand corner. You can also navigate to view specific course details by clicking on a specific course in the list.

Once you click on a specific course in the list, you will be taken to the *Class Detail page* (see Figure 5). These class details show the time, type of class, short summary, and professor information. From here, you can go back to the input classes list of courses page (Figure 4) by clicking the back button on the upper left hand corner, or the built in android back button in the bottom left hand corner. You can also add the course to your schedule of courses. If you click “*Add*” you will be led to figure 6, which is the *Enter Location page*.

In the *Enter Location Page* as seen in Figure 6, the Course Scheduler app asks you to enter the location for the course you are

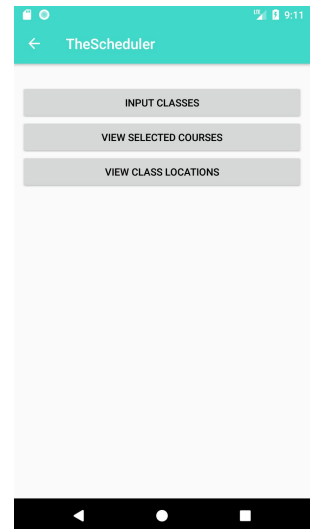


Figure 3

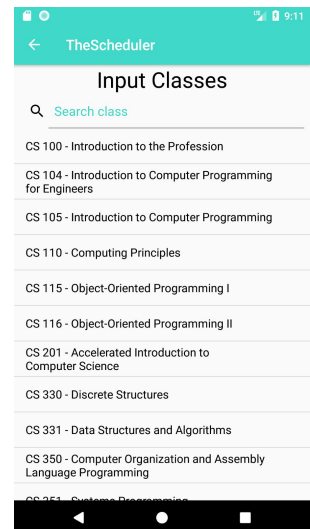


Figure 4

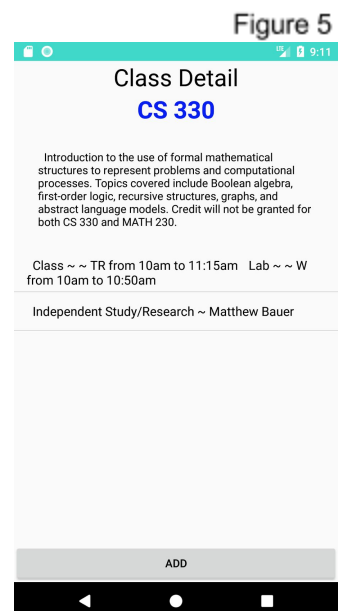


Figure 5



about to add. This course location will eventually be sent to the google map of all your future course locations. From here, you can navigate back to the class detail page (Figure 5), canceling the adding of your course, by clicking the back button on the upper left hand corner, or the built in android back button in the bottom left hand corner. After selecting the location, you can click “Add” to add the course to your schedule. This will send you to Figure 3, the course dashboard. You can repeat the above process to add more classes to your schedule.

5 View Selected Courses

If you click the “*View Selected Courses*” button in Figure 3, the Dashboard, you will be taken to Figure 7, the *View All Classes* page. This page displays all the classes you have added to your schedule in the Input Courses section.

From here, you can delete a course from your schedule, or go back to Figure 3, the Dashboard, by clicking the back button on the upper left hand corner, or the built in android back button in the bottom left hand corner.

6 View Class Location

If you click the “*View Class Locations*” button in Figure 3, the Dashboard, you will be taken to Figure 8, the Google Maps integrated view. You will be able to see the locations of courses indicated by red markers. These locations are the inputted locations from Figure 6.

From here, you can go back to Figure 3, the Dashboard, by clicking the back button on the upper left hand corner, or the built in android back button in the bottom left hand corner.

7 Demo

We will be doing a live demo on Saturday, December 2nd, 2017, at Illinois Institute of Technology, in the Life Sciences building, room 121, with Prof. Zhipeng Hao for CS442 Mobile Application Development.

8 Contact Us

For questions or concerns, contact the developers of this app at their respective emails below.

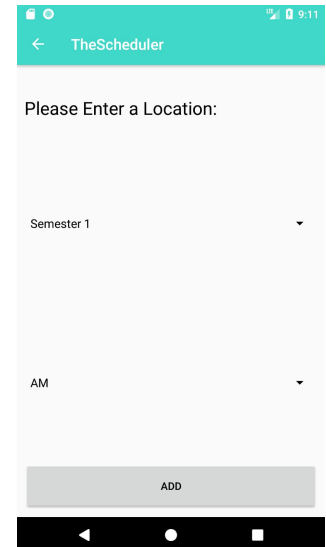


Figure 6

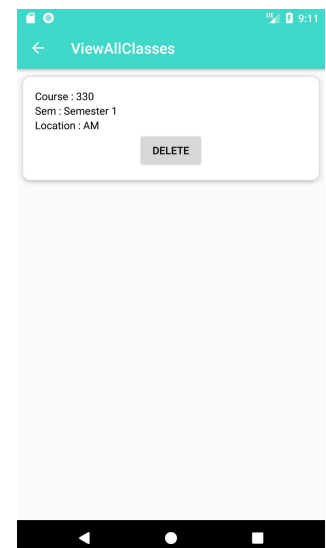
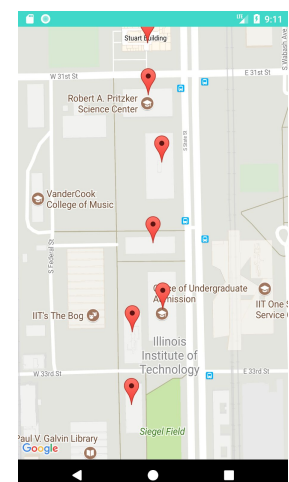


Figure 7

Figure 8





Course Scheduler App

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9 Data Source

All Data within this application was collected in Fall 2017 for the Spring 2018 Semester in Illinois Institute of Technology. It was collected from:

- My.iit.edu
 - Registration Tools: look up classes
 - Undergraduate DegreeWorks
- <https://science.iit.edu/computer-science/courses> note: Need to click on each individual course to view information
- <http://bulletin.iit.edu/undergraduate/>
- pop.weclarify.com

Thank you and credit goes to the respective owners of the above websites for clearly and concisely laying out the information we needed. Also, note, we DO NOT own the data in the application. The information is the property of Illinois Institute of Technology.

10 Questions about the Course Scheduler

For any questions about the Course Scheduler App, please contact our developers.



11 About this User Guide

Course Scheduler App Logo is property of CS442 Team 1. Pay our tuition to use it. ©2017

Currently, the Course Scheduler App is prioritized for computer science students at Illinois Institute of Technology. If you are not a current Illinois Tech Computer Science student, you will not be able to enjoy this application in its fullest potential.