

**Project Title:** Panther Shuttle App

**Members and Emails:** Joseph Hilde ([jhilde2022@my.fit.edu](mailto:jhilde2022@my.fit.edu)), Jonathan Suo ([jsuo2022@my.fit.edu](mailto:jsuo2022@my.fit.edu)), Tony Arrington ([tarrington@2022my.fit.edu](mailto:tarrington@2022my.fit.edu)), & Chase Monigle ([cmonigle2022@my.fit.edu](mailto:cmonigle2022@my.fit.edu))

**Faculty Advisor:** Professor Khaled Ali Slhoub ([kslhoub@fit.edu](mailto:kslhoub@fit.edu))

**Client:** Vincent Borrelli ([vborrelli2022@my.fit.edu](mailto:vborrelli2022@my.fit.edu)), Student Shuttle User

**Date(s) of Meeting(s):** September 17th (5:30pm), October 15th (5:30), & November 12th (5:30pm).

**Goal and Motivation:** We aim to develop an app for Florida Tech students to track the school's Panther Shuttle. Due to the information regarding the shuttle's hours being fairly hidden, as well as the ever-growing parking issue on campus, we will address both issues by making the shuttle a more reliable mode of transportation for students by creating a single, accessible location where all necessary information is available.

**Approach (key features of the system):** Users can see the Panther Shuttle's schedule for the current semester. This includes the location and time the shuttle will be at each stop, and includes days the shuttle will not be running. Essentially, the same information that can already be found, but with easier access for users.

Users can opt into specific stops to be notified when the shuttle is 30, 15, and 5 minutes away, respectively. This will help students have better planning around their daily schedules and ensure that they are able to catch the shuttle on time for both the students' and drivers' sake.

Users can see the shuttle live on a map to see its location and where it is at. This allows students to see how many stops there are before it arrives at their desired stop and get live feed to know when the shuttle is arriving for precise pinpointing.

**Novel features:** This will be the first iteration of a software for the school's shuttle, as besides the shuttle information on the school's website it has not been done before and with new features like a GPS system for tracking the shuttle and notifications of its arrival we consider it to be unique from other apps related to campus life.

**Algorithms and tools:** Tools we plan to include Android Studio, to develop the app and port it to Android devices while having an easy to use interface to help us get adjusted to mobile app development. Jetpack Compose is planned to be used for the GUI of the application, as we believe it is easy to use and pairs well with Android devices. Other tools for communication we would like to use include Google Calendar, for planning meeting dates and deadlines, Discord, for general communication and organizing announcements and files, GitHub, the main repository to store our files and collaborate with coding, and finally Google Drive, where all of our Documents and Presentations will be stored for easy access.

**Technical Challenges:** This is the first time all of the team members have actually made a full fledged app on mobile devices. We have some emulating and file downloading experience when porting stuff to mobile devices but never developing the app on a computer and porting it to mobile, so learning to use app development tools and the process will be a learning curve for us.

GPS systems are also something new to us. The ability to track phones is pretty easy nowadays due to modern technology however implementing the GUI into the app with an accurate map and user friendly interface will be something we will have to learn about to achieve.

**Milestone 1 (Sep 29): itemized tasks:**

Compare and solidify technical tools.

Provide small ("hello world") demo(s) to evaluate the tools, and showcase why we choose a specific tool.

Resolve any of our initial technical challenges and highlight new or recurring ones.

Showcase our collaboration tools for software development, documents/presentations, communication, task calendar.

Create Requirement Document

Create Design Document

Create Test Plan

**Milestone 2 (Oct 27): itemized tasks:**

Have a running version of the application on Android.

Implement a basic GUI.

Implement the Shuttle Schedule to be viewed (as PDF)

Implement a base framework for the interface.

**Milestone 3 (Nov 24): itemized tasks:**

Improve GUI to look better

Implement ability to sign in using FIT login.

Implement the beginnings of the mapping system.

Implement beginnings of the notification system.

**Approval from Faculty Advisor**

"I have discussed with the team and approved this project plan. I will evaluate the progress and assign a grade for each of the three milestones."

Signature: \_\_\_\_\_ Date: September 2nd, 2025

**Task Matrix for Milestone 1:**

Task	Joseph Hilte	Tony Arrington	Jonathan Suo	Chase Monigle
Compare and select Technical Tools	Testing: 20%	Testing: 30%	Research: 15%	Research: 15%
"hello world" demos	Coding (Base): 20%	Coding (Detailed): 50%	Coding (Bug fixing): 15%	Coding (Bug fixing): 15%
Resolve Technical Challenges	Research: 25%	Research: 25%	Research: 25%	Research: 25%
Compare and select Collaboration Tools	Handles Discord (25%)	Handles GitHub (25%)	Handles Calendar (25%)	Handles Google Drive (25%)
Requirement Document	Writing: 30%	Writing: 30%	Writing: 20%	Writing: 20%
Design Document	Writing: 30%	Writing: 30%	Writing: 20%	Writing: 20%
Test Plan	Writing: 30%	Writing: 30%	Writing: 20%	Writing: 20%