GradPlan

Be on schedule

ECE 4564 Final Project

Team 22:

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College is fast paced:

- Once classes pick-up, it's hard to keep track of deadlines that aren't for the near future

- Course request requires planning, comparing class times to create a schedule

- You may not have time to meet with your advisor during course request week

- As a freshman, you may not be familiar with different databases you can access: Timetable of classes, bursar's office, academic calendar dates & deadlines, etc.

GradPlan: Students in ECE can plan their...

Schedule
- Creates one or more schedules with desired classes
- CRNs provided for each version per class

Finances
- Tuition calculator with up-to-date costs
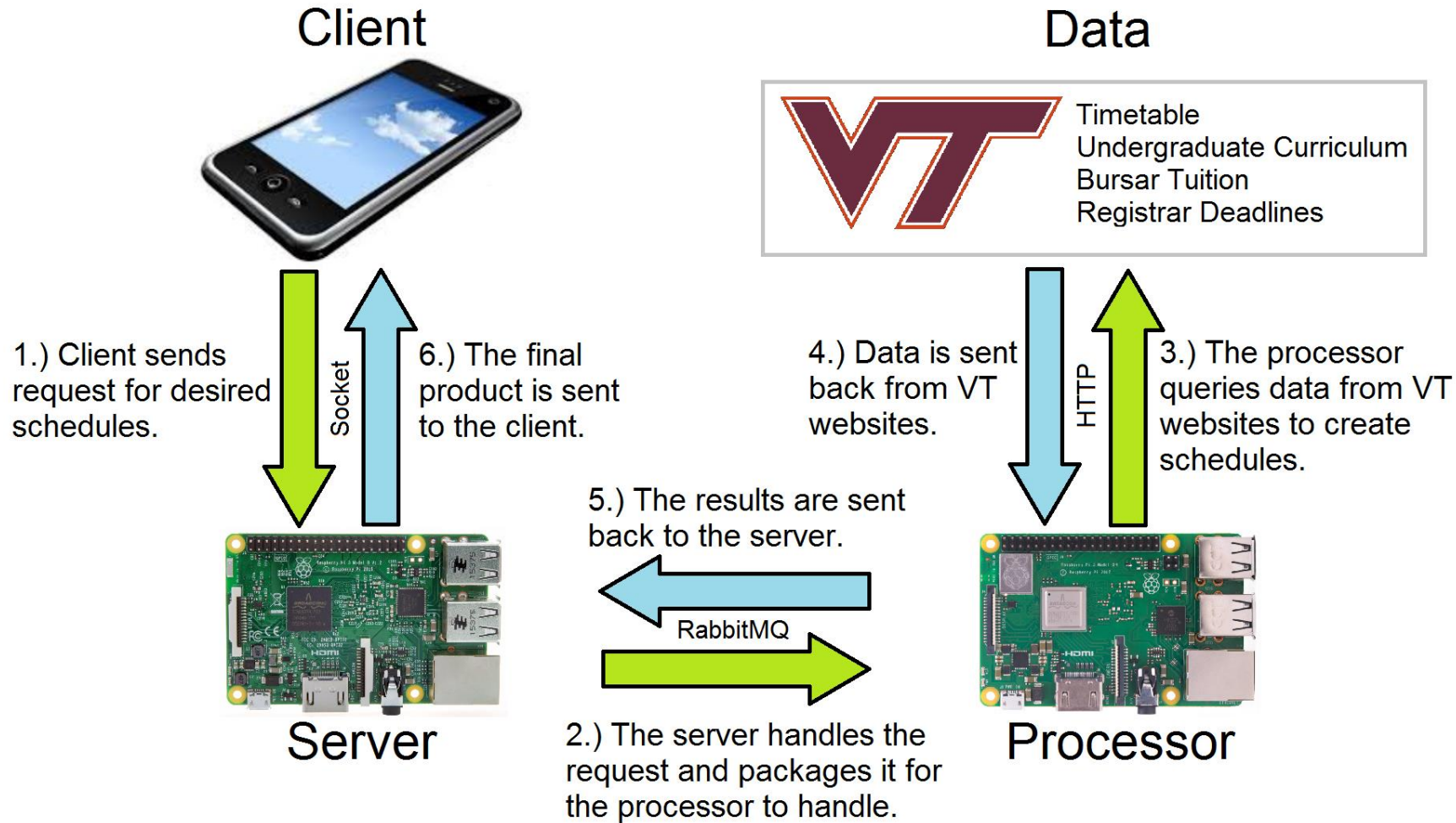- In-state, out-of-state, part-time and full-time

Deadlines
- Drop/Add
- Course-Request

Graduation
- Checksheet by graduation year and major

How it works: System Overview

Description of System Modules

Client	Server (Raspberry Pi)	Processor (Raspberry Pi)
• Send requests to retrieve class schedule. • Receives result from server with CRN numbers and costs. • Sends request to retrieve check-sheet, receives result from Server.	• Retrieves request from client and posts the data to a queue for the processor to retrieve. • Receives the results from processor and send the result back to the client.	• Consume from server queue. • Makes requests to the Virginia Tech websites based on the information provided. • Create schedules and send back to the server.

Description of System Modules

Virginia Tech Servers:

- **4 different VT websites are used to retrieve data, with the links provided in the specifications.**
- **The timetable of Classes server is used to retrieve data to generate schedules.**
- **The Curriculum and Tuition pages are used to provide check sheets and cost calculations.**
- **The Registrar's dates and deadlines page is used to obtain drop/add and course request deadlines.**

Virginia Tech Servers ---- Timetable of Classes	Virginia Tech Servers ---- Registrar's Dates and Deadlines	Virginia Tech Servers ---- ECE Undergraduate Curriculum	Virginia Tech Servers ---- Bursar's Tuition Page

Testable Requirements

1. Upon user input for classes and semester, one or more possible schedules generate with CRNs.

2. Based on user input, in-state and out-of-state tuitions are calculated for the given semester.

3. The user can make a request to retrieve a major checksheet corresponding to their graduation year.
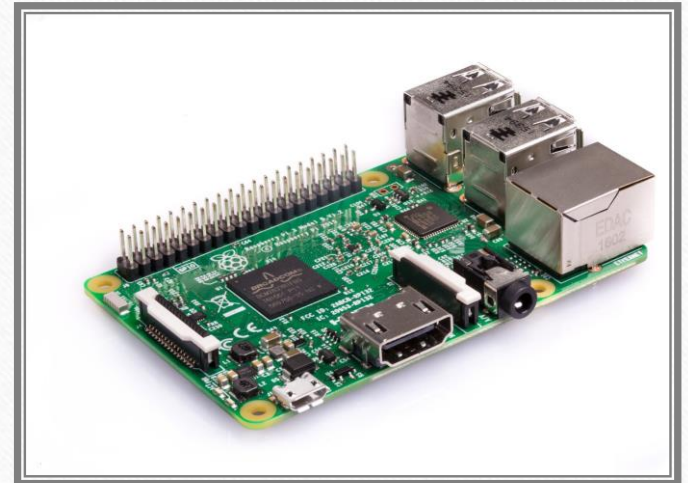
4. Based on system time, upcoming course-request and drop/add deadlines are displayed on the app.

Hardware Requirements

2 of Raspberry Pi 3 Model B

Work Division

Bengi:

1. Create custom API for the client-server interaction.

2. Develop a flask app to make requests to the web servers, work on the processor and server.

3. Create a user-friendly interface.

4. Test Requirements, Fix bugs.

Julian:

1. Setup client to make requests to the server.

2. Develop the algorithm to analyze data retrieved from the timetable to create the schedules.

3. Display dates & deadlines.

4. Test Requirements, Fix bugs.

Downside of this service?
It only works for ECE students!
So we are good.