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# **Project Charter: CS407**

# **Team Members:**

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* Tomasz Parzadka ([tparzadk@purdue.edu](mailto:tparzadk@purdue.edu))
* Brian Rhee ([brhee@purdue.edu](mailto:brhee@purdue.edu))
* Han Wang ([wang2786@purdue.edu](mailto:wang2786@purdue.edu))
* Jaeyeon Kim ([kim802@purdue.edu](mailto:kim802@purdue.edu))

**Problem Statement:**

Customers often find themselves struggling to find out whether a particular product, being either a food product or medicine, fits their dietary needs. They want to make sure the product does not have any conflict to their allergy restrictions, and want to find out fast. There are a few applications that have similar functionalities, but they are outdated and only supports old version of mobile devices with not user-friendly UX. Our app allows users to take a snap of a QR code, barcode or take a picture of the ingredient section from the product packaging to quickly identify whether the product is safe for them.

**Objectives:**

* Develop a mobile application that allows individuals to create an account and store allergy information to check if allergies exist in a desired products ingredients.
* Integrate Image-to-Text processing, extract ingredient information from food product packaging and match with allergy list of the user.
* Integrate QR/barcode scanning to add food or medications to a user’s account along with searching for the food or medication via typing the name.
* Warn users what medication, food, and allergy conflicts users may have while taking certain medications.

**Stakeholders:**

* **Development Managers** - The GTA/TA's our team reports to for this project.
* **Users/Customers** - Any individual who wants to track their medication usage, food and potential conflicts that could occur by intaking their inputted medications and food.
* **Project Managers** - Ashwin Prasad, Tomasz Parzadka, Brian Rhee, Han Wang, Jaeyeon Kim
* **Project Owners/Developers** - Ashwin Prasad, Tomasz Parzadka, Brian Rhee, Han Wang, Jaeyeon Kim

**Deliverables:**

* An interactive mobile application that provides a medium for users to check ingredients against their known allergies.
* Frontend utilizing XML, Android Studio.
* Database utilizing Google Firebase.
* Image to text processing utilizing Google Vision API.
* User authentication utilizing Login API (Facebook, Twitter, Google) or manual account creation.
* Testing utilizing Mockito framework.

**CS 30700 Projects:**

* Ashwin Prasad/Tomasz Parzadka:
  + We made a web application to provide students with a centralized platform to connect with tutors, professors, and access academic resources. It allows students to create a class schedule and upload documents to a sharable course-page. It also includes related course information with the implementation of a rating system.
  + Github Repository: <https://github.com/pujamittal/eduya>
* Brian Rhee/Han Wang:
  + Almost every combat game nowadays adheres to the same old used up formula of HP-Bar, Mana-Bar, and GP-Count. We’re here to break that mold and shoot for a new concept that will spice up the gaming atmosphere by twisting that concept into a new direction.
  + This project is a 2D battle arena game that uses “time” and its manipulation as the core mechanics to create a fun and engaging experience. It revolves around the idea of a top down co-op arena combat game that combines fast paced action with meticulous tactics and execution. In the gameplay, some of the more unique and markable aspects include but are not limited to, manipulation of time during combat, time as a form of player health and player actionable-guage, and responsive and fun set of weapons or actions to use when playing in co-op together, which all tie together thematically.
  + Github Repository: <https://github.com/erenwh/S2Studios>
* Jaeyeon Kim
  + Routing from point A to point B has never been easier with convenient, accurate, and comprehensive turn by turn navigation applications like Google Maps; however, when traveling on foot in the midst of metropolitan labyrinths, it’s easy to get confused even with a map on hand. My 307 team’s solution to urban explorers everywhere is Wayfare, an advanced panoramic route preview and navigation from the pedestrian’s perspective. Using Google’s Street View API, Wayfare will intelligently stitch together the user’s route and create a video that can both preview and correspond to the route taken, and this innovative navigation method allows the user to utilize landmarks in conjunction to standard turn by turn directions. Wander freely, wayfarers, and find yourself on your next excursion with Wayfare.
  + Github Repository: Private (<https://github.com/ryujimano/wayfare>)