

		TEAM NUMBER	6								
		SPRINT	1								
		TEAM MEMBERS	Pranay, Utkarsh, Anthony, Logan, George, Neel								
STORY NUMBER	TASK DESCRIPTION	OWNER	START DATE	DU ^E DATE	WEEK 1	WEEK 2	WEEK 3				
Column 1	Setup Redis Cache and PostgreSQL Database				M T W R F S Su	M T W R F S Su	M T W R F S Su				
1	Create a Redis Cache to store the parking lot availability counters	Neel	10/1/2025	10/17/2025							
	Create a PostgreSQL database to store historical data and login information	Neel	10/1/2025	10/17/2025							
	Configure the Redis Cache to store key-value pairs tracking remaining parking spots	Neel	10/4/2025	10/17/2025							
	Configure the Redis Cache to store key-value pairs for tracking last updated time	Neel	10/4/2025	10/17/2025							
	Configure the PostgreSQL database with tables for login information and each parking lot	Neel	10/4/2025	10/17/2025							
	Configure a Redis Pub/Sub channel to send key-value pair updates to clients	Neel	10/5/2025	10/17/2025							
	Test the robustness and functionality of the Redis Cache and PostgreSQL databases	Neel	10/5/2025	10/17/2025							
2	Setup Python Backend with Django and Basic Routes			10/17/2025							
	Create Python backend and initialize Django framework	George	9/30/2025	10/17/2025							
	Implement basic routing to the Redis cache and to the PostgreSQL database	George	10/1/2025	10/17/2025							
	Test the connection by incrementing and decrementing Redis and checking backend	George	10/6/2025	10/17/2025							
	Test the connection to the PostgreSQL database	George	10/7/2025	10/17/2025							
3	Integrate sign in with Apple Account			10/17/2025							
	Create and register app with Apple	Utkarsh	10/1/2025	10/17/2025							
	Install Apple SDKs and libraries	Utkarsh	10/8/2025	10/17/2025							
	Create a button on the frontend to sign in with Apple	Utkarsh	10/9/2025	10/17/2025							
	Connect to the backend and implement endpoints for OAuth, tokens, and verification	Utkarsh	10/11/2025	10/17/2025							
	Test integration to the PostgreSQL database, backend, and frontend	Utkarsh	10/12/2025	10/17/2025							
4	Integrate Sign in with Google Account			10/17/2025							
	Register the app in Google Cloud Console and obtain OAuth 2.0 client credentials (Client ID & Secret).	Utkarsh	10/1/2025	10/17/2025							
	Install Google OAuth SDKs and libraries	Utkarsh	10/1/2025	10/17/2025							
	Create a button on the frontend to sign in with Google	Utkarsh	10/1/2025	10/17/2025							
	Connect to the backend and implement endpoints for Google OAuth callback, token exchange, and Google ID token.	Utkarsh	10/4/2025	10/17/2025							
	Test integration with PostgreSQL database, backend, and frontend	Utkarsh	10/5/2025	10/17/2025							
5	Integrate Sign in with Email and Password			10/17/2025							
	Create a user data type in the backend and database	George	9/30/2025	10/17/2025							
	Create REST API routes for basic login and signup	Utkarsh	10/6/2025	10/17/2025							
	Create some generic preferences that can be used to test persistence	Logan	10/1/2025	10/17/2025							
	Create unit tests for the login and signup	Logan	10/1/2025	10/17/2025							
	Test with admin users and run end to end tests	Utkarsh	10/6/2025	10/17/2025							
6	Setup CV Model to Detect Cars			10/17/2025							
	Research pre-labeled car detection models from Open CV (COCO, Pascal VOC, Open Images, Roboflow)	Pranay	9/30/2025	10/17/2025							
	Download pre-trained model and verify environment set up	Pranay	10/1/2025	10/17/2025							
	Download parking lot and non parking lot video footage	Pranay	10/3/2025	10/17/2025							
	Verify and test car image is detected by model	Pranay	10/5/2025	10/17/2025							
	Verify and test that the test negative image is not detected by the model.	Pranay	10/5/2025	10/17/2025							
7	Driver Counts			10/17/2025							
	Link Redis Cache to PostgreSQL DB through Python HTTP request on edge computer	Pranay	10/6/2025	10/17/2025							

	Develop backend Django route to query the Redis Cache	Pranay	10/8/2025	10/17/2025					
	Develop backend route to query the PostgreSQL DB as a fallback	Pranay	10/8/2025	10/17/2025					
	Develop display to show the count for the parking lot	Pranay	10/9/2025	10/17/2025					
	Test backend routes and user display	Pranay	10/9/2025	10/17/2025					
8	Ensure the Camera is synced with the CV model			10/17/2025					
	Configure the camera to expose a video/data stream and verify local connection over HTTP	Pranay	10/10/2025	10/17/2025					
	Set up a lightweight server (Flask, FastAPI, or MQTT broker) on the edge device	Pranay	10/11/2025	10/17/2025					
	Connect the camera stream to the server and ensure data flow	Pranay	10/12/2025	10/17/2025					
	Define event schema for edge to backend messages	Pranay	10/13/2025	10/17/2025					
	Develop edge computing code to detect cars coming in and cars coming out	Pranay	10/13/2025	10/17/2025					
	Connect the edge computing resource to the Redis Cache and test	Neel	10/15/2025	10/17/2025					
9	Create & Design app Icon to follow liquid glass design			10/17/2025					
	Design App Icon	George	10/13/2025	10/17/2025					
	Create Apple version of the App Icon with dark and clear versions	George	10/15/2025	10/17/2025					
	Upload it to the codebase and check the correctness	George	10/16/2025	10/17/2025					
	Design a React components that utilises the icon and displays it on the home screen	Logan	10/16/2025	10/17/2025					
	Add the app icon to a splash screen that appears on load	Logan	10/16/2025	10/17/2025					
10	Setup React Native frontned with files and routes			10/17/2025					
	Design React Native frontend architecture and format	Anthony	9/30/2025	10/17/2025					
	Create an easy-to-understand file structure to store and organize frontend files	Anthony	9/30/2025	10/17/2025					
	Develop basic theme (colors and format) that will be consistent across pages	Anthony	10/1/2025	10/17/2025					
	Connect the frontend and redis cache	Neel	10/3/2025	10/17/2025					
	Develop working log-in page	Logan	10/3/2025	10/17/2025					
	Develop working home page (list of Purdue garages)	Logan	10/5/2025	10/17/2025					
	Develop buttons on the bottom of pages to change between pages	Anthony	10/6/2025	10/17/2025					
	Test integration of pages	Anthony	10/13/2025	10/17/2025					
11	Add functionality to link calendar to the app			10/17/2025					
	Set up the frontend element to accept the uploading of an iCS file	Anthony	10/6/2025	10/17/2025					
	Send the iCS file to the backend	George	10/7/2025	10/17/2025					
	Ingest and clean data	George	10/8/2025	10/17/2025					
	Create a basic display for uploaded calendar events	Pranay	10/8/2025	10/17/2025					
	Test accuracy of calendar upload	George	10/10/2025	10/17/2025					
12	Create "Last updated <timestamp>" label on each lot so users can trust freshness.			10/17/2025					
	Set up the PostgreSQL table to have a last updated column	Neel	10/6/2025	10/17/2025					
	Setup the frontend client to subscribe to the Redis Pub/Sub channel	Neel	10/6/2025	10/17/2025					
	Develop a Python script to update the PostgreSQL table with the updated count for parking lots every 15 minutes	Neel	10/7/2025	10/17/2025					
	Develop a Django route to fetch the count	George	10/9/2025	10/17/2025					
	Test the connection between the database, the Redis cache, and the backend	Logan	10/15/2025	10/17/2025					
13	Allow the User to manage their notification preferences (which alerts and when)			10/17/2025					
	Create a list of notifications that we want to offer users	Neel	10/9/2025	10/17/2025					
	Create a list view in the frontend that contains a list of all the notifications and allows a user to select which ones they want to receive	Utkarsh	10/10/2025	10/17/2025					
	Set up route to the backend that accurately conveys the information	Neel	10/12/2025	10/17/2025					
	Test backend user notification settings with a fake user	Logan	10/15/2025	10/17/2025					
14	Add Push Notification Functionality to alert Users when parking passes go on sale			10/17/2025					

	Add push notification permissions and token registration in the mobile app	Logan	9/29/2025	10/17/2025					
	Create API endpoints to enable user to enable push notifications	Logan	10/2/2025	10/17/2025					
	Store and manage user device tokens in the PostgreSQL database	Logan	10/5/2025	10/17/2025					
	Add backend logic to notify active users when parking passes go on sale	George	10/8/2025	10/17/2025					
	Test that devices receive push notifications when a sale is active	Logan	10/8/2025	10/17/2025					
15	Integrate map with all of the garages and lots listed where users are able to park				10/17/2025				
	Find/create Purdue map	Anthony	9/30/2025	10/17/2025					
	Add pindrop of tracked parking lots on the map	Logan	10/2/2025	10/17/2025					
	Create map page on UI	Logan	10/3/2025	10/17/2025					
	Add number on pindrops that display how full the lot is	Logan	10/5/2025	10/17/2025					
	Connect availability data from database to frontend map	Neel	10/15/2025	10/17/2025					
	Test availability updates from database	George	10/15/2025	10/17/2025					
16	As a user, I want to toggle between a list view and a map view depending on my preference				10/17/2025				
	Add a toggle button (e.g., "List / Map") to the UI.	Utkarsh	10/6/2025	10/17/2025					
	Implement a list view that displays lots/garages with availability info.	Utkarsh	10/6/2025	10/17/2025					
	Connect toggle logic to switch between the list view and the map view.	Utkarsh	10/8/2025	10/17/2025					
	Ensure data (lots and availability) is consistent across both views.	Utkarsh	10/8/2025	10/17/2025					
	Test switching between views to confirm state persists and no errors occur.	Pranay	10/14/2025	10/17/2025					
17	Create light & dark mode for the app so it goes along with system theme on users phone				10/17/2025				
	Create a toggle on the frontend that effectively switches between light and dark mode	Anthony	10/1/2025	10/17/2025					
	Send those changes to the backend through the proper channels	Anthony	10/2/2025	10/17/2025					
	Create UI elements in both light and dark modes	Anthony	10/6/2025	10/17/2025					
	Test the accessibility of the UI elements in the light and dark modes	Anthony	10/7/2025	10/17/2025					
18	Design Color Scheme for the app to follow the Purdue Color Scheme				10/17/2025				
	Find and decide what actual hex colors to use in our app	Anthony	10/11/2025	10/17/2025					
	Create UI elements with our specified colors in both light and dark modes	Anthony	10/12/2025	10/17/2025					
	Test the legibility of the UI elements in both light and dark mode	Anthony	10/13/2025	10/17/2025					