

Name	Name	Tasks to do	Completed?	Remarks
Leshane	-	YOLOv5s model	Completed	Running with live video/recorded video object detection, waiting for video
Jullisha	-	Bus Telegram Bot	Completed	Created a Telegram bot using BotFather and added a command to list its functionality.
Jullisha	-	Integrate SnatchBot with a Telegram bot to facilitate user interaction	Completed	Designed a user interaction flow allowing users to navigate through a menu and choose desired information. Example flow includes options such as viewing bus arrival time, queue length (embedded static image), berth crowd density, and seat availability.
Jullisha	-	Linked Pipedream with Telegram Bot	Unaccomplishable	Encountered issues with retrieving and displaying the information in Telegram bot due to another Webhook service being used.
Jullisha	-	Linked Zapier with a Telegram bot	Unaccomplishable	Was able to establish communication between Telegram and Zapier, enabling actions in Google Drive based on Telegram inputs. However, encountered issues with retrieving and displaying the information in Telegram bot due to another Webhook service being used.
Jullisha	-	Attempted to setup an API key and OAuth client ID in the Google Cloud Console	Unaccomplishable	Access got blocked due to app's invalid request.
Jiakai	-	Tensorflow mobiledss_v1 model	Completed	Able to detect people, detection of people is lower than of YOLOv5, however frame rate is higher.
Ke Yi	-	Bus sound analysis	Completed	Noise filtering using FFT
Si Hui	-	Tried using the various python libraries such as Pybluez,PyGatt, hcitool,bluepy-btle to detect bluetooth device such as phone, TV as as BLE device such as smart watch	Completed	
Leshane	-	Queue detection on YOLOv5s model	Completed	Able to detect number of people, the video needs to be at a higher angle and have better lighting to accurately detect the total number of people in queue. Can only currently detect total number of people queueing due to video angle.
Leshane	Jiakai	Bus number detection using pytesseract model	Completed	Able to detect bus number of the arrived bus, while comparing it with the berth's signage.
Leshane	-	Bus status detection using YOLOv5s model	Completed	After 1 seconds frame, able to detect bus using model

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Jiakai	-	Speed up process - Export Yolov5s model to ONNX runtime/ use xlsxWriter to process excel file	Unaccomplishable	To increase speed of the model while detecting the video. Currently figuring out the code. Saving to xlsx is slightly longer than txt, but manage to use xlsxWriter to speed up the process by abit
Jullisha	Si Hui	Linked Pipedream with Telegram Bot	Completed	Integrated Pipedream withTelegram bot, enabling communication with Google Drive to retrieve values from a sheet, update sheets, and subsequently send the information to the Telegram bot.
Si Hui	-	Helped to split video into 1 second/frame	Completed	
Jiakai	Leshane	Automate the upload of files to google drive everytime there is an update in the csv file	Completed	used 'inotify-tools' and 'rclone' to automatically update csv files into specific folder in google drive.
Jiakai	-	Used ThreadPoolExecutor to parallelize I/O bound tasks (4 workers)	Unaccomplishable	Took abt 120 seconds instead of the current 77 seconds
Ke Yi	-	Bus sound analysis using edge impluse	Completed	Deploy an Edge Impulse model on a Raspberry Pi and export the results to a TXT/CSV file. --> changing to SVM
Ke Yi	-	Train them on a simple SVM model	Completed	<ul style="list-style-type: none"> - Collect Data - Data Preprocessing (manual label of (bus/no_bus) - SVM Model (accuracy) - Prediction
Si Hui	-	Differentiate iphone vs samsung (Look up table) Filter out those bluetooth	Unaccomplishable	Due to time constraint, we are unable to do this
Si Hui	-	Scheduling of code to ensure it runs faster than 74seconds (without scheduling) for the following functions:Bus status, Bus signage's bus number, Bus's bus number detection, queue detection	Halfway	
Jullisha	Leshane	To crop the image to the bus signage and extract out the bus numbers at the berth	Unaccomplishable	Cropped the image to preprocess one of the image to extract out bus numbers from signage but did not improve results. However, did manage to improve the extracting of bus numbers from signage through function to preprocess image by alittle.
Jiakai	Leshane	Use 'Room assistant' to detect bluetooth using raspberry pi 4	Unaccomplishable	Tried to set up home assitant supervised on VM, debian. However, home assistant couldnt connect, which is required to set up room assistant. Room assistant is required to detect bluetooth such as smart watches and phones without opening settings page.