Chameleon

Smarter World

DEAKIN UNIVERSITY

Pass Task11.2P

Chameleon

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Executive Summary

OUR MISSION

Given the complexity of energy application needs today, IoT systems are being designed to address a wide variety of existing problems.

In Chameleon, our mission is to research, create, test, document and deploy IoT-based solutions to enhance life through the application of smart city technologies. Including the building of smarter cities, homes, transportation, and energy management systems.

OUR STRUCTURE

There are currently three divisions within the company, focusing on the three key areas of strategic importance:

- Electric Vehicle (EV) Adoption Tools (EVAT)
- City of Melbourne Open Data (MOP)
- Chameleon Website (CW)

Both EVAT and MOP leverage datasets from several sources including data generated by IoT-based sensors and as such fit within the goals and mission of the company. The Chameleon website is our main online presence where we articulate who we are, what we do, and show case our projects to the world.

EVAT

The EV Adoption Tools division currently has two projects underway. The first is a mobile application to help EV drivers locate and navigate to charging stations that meet the needs of their vehicles. The second uses big data to analyse the density of EV ownership, main transport routes (amongst other things) and recommends optimal locations for new EV Charging stations.

MOP

The City of Melbourne Open data division has been engaged with Melbourne City to support greater use of their Open Data library by businesses, researchers, and software developers. MOP delivers an educational portal that demonstrates how to leverage Open Data using real-world scenarios which helps Melbourne City achieve one of their key strategic goals.

CW

The Chameleon Website aims to accumulate all the information about the Chameleon company overall to present in a format that is pleasantly designed, laid out, easy to navigate and useful components to display the progress of all 3 projects while outlining their goals. Which aims to provide a one-stop portal to different links and sub-projects within the company.

Leadership Team

Acting Director: Chathu Ranaweera.

Company Board: Chathu Ranaweera , Mick Wiedermann, Angie Hollingworth, Janvi Gupta.

EV Adoption Tools

Group Project Lead: Mick Wiedermann

EV Charger Forecasting & Location Optimisation (*sub project 1)*

- Sub Project Lead: Barry Chen
- Web Dev Lead: Yesini Charithma Liyanage
- Data Science Lead: Scott West & Ishika Khanna

Evoleon Mobile Application (*sub project 2*)

- Sub Project Lead: Joel Murph-Dyer & Jordan Sam Cook
- App Dev Lead: Aanan Abdullah

Melbourne Open Data

Project Lead: Angie Hollingworth

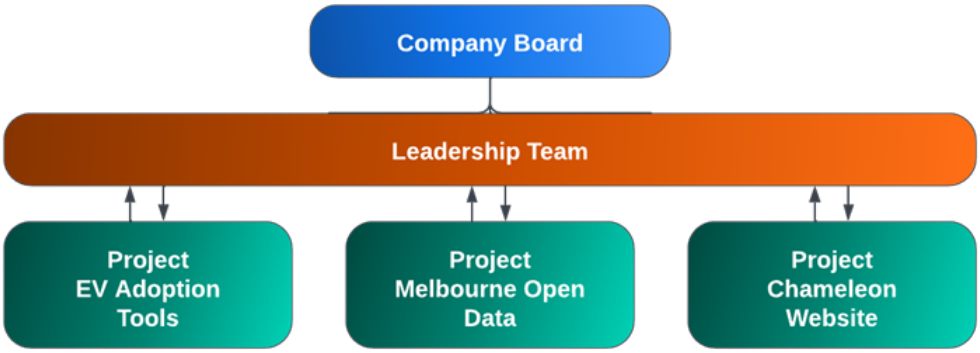
- Data Science Leads: Vaibhav Kashyap, Vinit Karunakar, Abhishek Bajaj
- Web Development Lead: Tate Remzi-Johnson
- Security Team Lead: Izaz Ishaque

Chameleon Website

Project Lead: Janvi Gupta

- Web Development Lead: Navin Dharamrajan & Mayank Verma
- Design Team Lead: Zak Constable
- Assistant Design Lead: Jon Suwannakoot

Company Structure



Trimester Achievements

Trimester 1 2023 Goals & Objectives

Along with moving each of the Chameleon projects forward, closer to their overall goals, we have identified the following areas for improvement this trimester.

- Document a policy for creating and storing documents with a focus on storing and managing key company documents on GitHub. Once created, migrating company documents to GitHub converting them to markdown in the process.
- Document the best practice policy for the maintenance of the company's GitHub repository, this is to include how to prepare the repository for handover at the end of the trimester.
- Document a policy and procedure for the overall handover process for the company making it seamless for future students to take the lead. This involves:
  - Centralising credentials and resources used throughout the company.
  - Have multiple junior students (who are on lead) brought into the handover process across all projects so that the knowledge does not sit with one team, project or person.
- Introduce cross-collaboration across all projects within the company
  - Sharing teams such as design & security
  - Have multiple cross-company meetings to get all team members (especially the juniors) familiar with the company as a whole.
  - Share wins, roadblocks, resources and topics across similar teams from other projects.
- Introduce and document Cyber Security best practices, and stress tests across all projects. This will introduce future tasks that the web development teams can complete.
- Implement a Design plan across all projects that details the colour scheme to layouts to high-fidelity quality produced wireframes with quality prototyping.

Completed Goals & Objectives

Chameleon is happy to report the successful completion of the following goals and objectives for the trimester.

- Documented a policy for creating and storing documents with a focus on storing and managing key company documents on GitHub. Re-created a number of key documents in markdown adding them to the updated document repository.
- Documented the best practice policy for the use of the company's GitHub repository, also a how to for handover at the end of the trimester.
- Documented a procedure for the overall handover process for the company making it seamless for future students to take the lead. This involves:
  - Centralising credentials and resources used throughout the company.
  - Have multiple junior students (who are on lead) brought into the handover process across all projects so that the knowledge does not sit with one team, project or person.
- Introduced cross-collaboration across all projects within the company,
  - Sharing teams such as design & security
  - Having multiple cross-company meetings to get all team members (especially the juniors) familiar with the company as a whole.
  - Share wins, roadblocks, resources and topics across similar teams from other projects.
- Introduced and documented Cyber Security best practices, and stress tests across all projects. This will introduce future tasks that the web development teams can complete.
- Implemented a Design plan across all projects that details the colour scheme to layouts to high-fidelity quality produced wireframes with quality prototyping.

Showcase Video Summary

Here you can view the showcase highlights video for the Chameleon Company: Showcase Summary Video. (https://deakin365.sharepoint.com/:v:/s/Chameleon2-Chameleon-Leadership/EW4kNJu9-bFAh6ys03tjOLwBM3DqzM2Wby8vlQlH0Yih9w?e=Tvej6G)

Each project has a longer more in depth showcase video which you can find below each projects completion summary. We also created this short 1 minute video to summarise the trimester for a little fun: Chameleon for the win. (https://youtu.be/TvBGDw1JdX8)

Projects Overview

EV Adoption Tools

The EV Adoption Tools project aims to drive increased adoption of Electric Vehicles (EVs) in Australia. This will help drive reduced dependence on fossil fuels, lower greenhouse gas emissions and have a positive impact on the environment and global weather events.

EV Charger Forecasting & Location Optimisation

Overview

Project EVCFLO provides aid to this cause through two key services: interactive maps using Google API, and an AI Prediction System, that recommends new Electric Vehicle Charging Station (EVCS) locations which will be used effectively by the relevant population.

Goals & Objectives

1. Using community data to expand on our database through the addition of newly found datasets.
2. Narrow down to the key external factors which impact the usage and success of EVs and EVCSs
3. Display newly discovered EVCS locations onto a visual map.
4. Integrate new EVCS locations onto our Google API interactive map.
5. Fully migrate and host the new React based EVCFLO website.

Aims this Trimester

Convert the old HTML/CSS website to new website that using React framework and aim to integrate an interactive map that covers all EVCS locations across the globe to the website. Research and implement an AI Prediction System that automatically and accurately recommends new EVCS locations for EVCS companies to utilize. Further, we aim to advance the project website by implementing design work completed by previous trimesters and add more contents to the website.

Deliverables

- Display newly discovered EVCS locations onto a visual map (Web-Development team).
- Integrate new EVCS locations onto our Google API interactive map (Web-Development team).
- Implement website designs on the EVCFLO website and increase the sites functionality (Web-Development team).
- Fully convert the old HTML/CSS website using React framework (Web-Development team).
- Add more website contents such as FAQ page and AI Model pages (Web-Development team).
- Expand on our EV Charge Location database through the addition of new datasets. (Data Science Team)
- Continue to improve the clustering predictions, these are working but can be improved (Data Science Team).
- Create more EVCS related AI/ML models to facilitate EVCS development and promote EV adaptation (Data Science Team).
- Conduct more EV/EVCS related research and data analysis on newfound datasets (Data Science Team).
- Improve the current visualisations (Both teams).

Completion Summary

- Fully converted the old HTML/CSS website using React framework (Web-Development team).
- Added FAQ and AI Models web pages to the new react site.
- Reconfigure the Form elements of the website for user to add new EVCS locations.
- Updated and migrated the EV charging locations map, currently working though not yet complete.
- Conducted an extensive review of the project repository as a precursor to cleaning and updating it.
- Updated the EVCFLO repo with new readme's and linking directories as well as new best practice documents.
- Reviewed and reorganised datasets and notebooks resources in the project GitHub Repo
- Added new EV/EVCS related datasets to the project and conduct data analysis on these data.
- Researched and built new AI/ML models to promote EVCS development.
- Currently investigating a proper way to implement Flask for website backend and how the website can be hosted online using Google Cloud Platform.
- Fully converted the old HTML/CSS website onto the React framework (Web-Development team);
- Added new sections to the React Framework being FAQ and AI Models;
- Reconfigure the Form elements for easier addition of new EVCS locations;
- Updated and migrated the EV charging locations map. Please note, this is still a work in progress;
- Conducted an extensive review of the project repository;
- Updated the EVCFLO repo with new readme's and linking directories as well as new best practice documents.
- Reviewed and reorganised project resources (datasets and notebooks) in the EVCFLO GitHub Repository;
- Added new EV/EVCS related datasets to the project and conducted Exploratory Data Analysis (EDA) reporting results.
- Researched and built new AI/ML models to promote EVCS development and Improved EVCS Machine Learning (ML) density clustering models.
- Updated research webpage to house all project related data science research in an easy-to-access format.
- Investigated and wrote a summary of implementing back-end technology Flask to enhance website performance. Researched hosting the website using the Google Cloud Platform.

Showcase Video

Here you can view the showcase video for the EVCFLO project: EVCFLO Showcase. (https://www.youtube.com/watch?v=mRzpHou7z7Y&

feature=youtu.be)

Future Deliverables

- Implement further updates to the EVCFLO website and app design (Web-Development team);
- Display newly discovered EVCS locations onto the visual map (Web-Development team);
- Integrate new EVCS locations onto our Google API interactive map (Web Development team).
- Improve the search bar functionality of the research webpage (Web Development team);
- Fully deploy EVCS Machine Learning density clustering models for both Victoria and Queensland under the AI Models webpage (Web Development team);
- Expand on our EV Charge Location database through the addition of new datasets with a focus on Australian information (Data Science Team);
- Create more EVCS related AI/ML models to facilitate EVCS development and promote EV adoption (Data Science Team);
- Conduct more EV and EVCS related research and EDA on newfound datasets (Data Science Team);
- Ameliorate current mapping features, EVCS Search functions and visualisations (Data Science & Web Development Teams).

Tech Stack & Key Resources

- React
- Typescript
- Flask
- Python
- Google Cloud Services
- GitHub (https://github.com/Chameleon-company/EVCFLO)
- Firebase and Firestore (https://firebase.google.com/)
- Figma (https://www.figma.com/)
- The Trello board (https://trello.com/b/v3XH0ISE/evcflo-project)

Note, login credentials and administration rights for these accounts have been passed onto the incoming leadership team and are contained within the Chameleon Resource Access document which can be found within the Chameleon Leadership Channels files.

EVCFLO Project Members Contributions

Name	Student_ID	UG/PG	J/S	Team	Lead	Achievements
Mick Wiedermann	222058299	Undergrad	Senior	Project	Yes	Within EVCFLO I organised and hosted the weekly meetings, recorded minutes, supported and helped organise the team. Created the current trello board (previous board was seperate to Chameleon), created Chameleon onboarding checklist and sprint planning documents. Note, I contribute to Evoleon App technically, not EVCFLO.
Scott Geoffrey West	213121254	Postgrad	Junior	Data Science	Co.	I have assisted with creating the "Data Science - Getting Started & Upskilling folder", and pro-actively completed project management tasks using through Trello, organizing meetings and communicating in Microsoft Teams. I have also built & completed EDA & ML models on EV charging stations around the world. In doing so I created charts & reports (eg pie, bar & heat maps) to uncover insights & committed these to Github (please note this is still a work in progress).
Jamie Connor Davidson	222356461	Postgrad	Junior	Data Science		Restructured EVCFLO/datasets & visualisaitons repository: Implemented organisational improvements in the GitHub repository, resulting in efficient dataset/visualisation management and maintained cleanliness. Sourced datasets for EVCFLO: Obtained reliable data sets, adding 88.36K charging station locations. Produced Notebooks for data cleaning and extraction: Reducing future workload and allowing more focus on data transformation and analysis and developed a user-friendly notebook to extract coordinates. Created visualisations: Generated Power BI visualisations that utilise the extracted data, enabling the team to visualise the charging station locations.
Siqin Chen	221115918	Postgrad	Senior	Data Science		Do research about EV range and US EV charging station; collect datasets of the 2 topics; write Python scripts to clean and explore the datasets; generated a variety of graphs to visualize the data; figure out important features related to the location of EV charging station; attend weekly meetings to keep in touch with team members; learn git and java script.
Viola Cherotich Meli	221187491	Postgrad	Senior	Data Science		conducted research on EV, in melbourne, my user story was on determining the wait time per charging station, in the first sprint I have been able to use the already collected dataset since i found most of them that were collected last trimester more suitable for my case..I did alot of data cleaning and EDA using python and uploaded a comprehensive document on the same. In this second sprint am working on implementing machine learning models that would be used on predicting the wait time.In the last sprint i worked on improving the clustering algorithm in that aspect i implemented random forest. which is one of the supervised machine learning algorithms.
Chaoyi (Barry) Chen	220358865	Postgrad	Junior	Web Dev, Project	Yes	I have co-hosted weekly team meeting and written minutes, assisted on broken down user stories into actionable Trello card items, organise and properly setup Trello board, reviewed and organised GitHub resources, managed GitHub pull requests, facilitate team communication and operation. I developed AI Models and Research webpages using React framework with added functionality such as search bar. I have reviewed and provided summary report of all data analysis and AI/ML models related to the project, improved EVCS density clustering ML model and created dedicated webpage for this ML model.
Ishika Khanna	219551957	Undergrad	Junior	Web Dev	Yes	
Arnold Prabudda Kalpesh Mendis	222330109	Undergrad	Junior	Web Dev		As an active member of the web dev team, I have prepared several user stories such as a chatbot and a submission form that will help to achieve a better outcome through our EVCFLO website. Furthermore, I have fully developed a user submission form using React JS frontend technology, which helps us to insert records into our company database regarding the required EV charging stations in specific areas. I've developed react JS the Home Page and other pages according to the new prototype guidelines.finally, i have developed the login page as well.

Name	Student_ID	UG/PG	J/S	Team	Lead	Achievements
Mark Justin Premier	222115089	Postgrad	Junior	Web Dev		Being a member of the frontend web dev team, I implemented the React framework to create a new and more functional frontend of the website, and migrated across most of the work from the previous website into the new website. I've also been helping other team members understand the React framework, so we all can contribute.
Yousef Ashraf Y A Al-Mulla	221410734	Undergrad	Junior	Web Dev		I created a webpage containing details of the different electric chargers offered by the company, The different products are suitable for different users. I created the webpage using react and I uploaded the same to GITHUB.I am now creating webpages containing different products and their installation suitable for different areas like workplaces, retail markets etc.
Yousef Almulla	221410734	UnderGraduate	Junior	Web dev		I have used react js as the frontend for creating the website. As we know react js is an open source language which uses js library which provides a user friendly environment for creating webpages. I have created News webpage, EV Charge(Partners) and Contact Us webpages . For this web development I used a System Development Life Cycle for e-commerce where first I planned and analysed what all things needed for the website like problem solving. I have done lots of researches on designing the webpages, like first I will draw the design and then if it suits the website then I will put the design into implementation. The designing phase was like creating a webpage out my creativity. I also had good team communications where i attended most of the team meetings and collaborated with my team mates.i ensured that my work has to be a high quality work to suit the efforts of the team. I attended most of the weekly classes to catchup with any updates.
Ezekiel Kevin Griffin	219272783	Undergrad	Senior	Web Dev		Created multiple report documents outlining and breaking down the purpose of previous trimesters work for teams understanding. Reacquired access to both GCP and MongoDB assets and begun documentation. Created new React/Flask integration for deployment using GCP and Docker. Cleaned Up and Reconstructured EVCFLO GitHub to make it cleaner and easier for new students to develop in. Created multiple documentation documents for key areas of development including (Getting Started, Uploading to MongoDB, Flask/Backend Explainer and Instructions for Deployment) Additionally i created new code in the form of a react google map.
Yesini Charithma Liyanage	222063923	Undergrad	Junior	Web Dev	Yes	As the Web Dev team lead, I have contributed in leadership and team meetings, assisted in forming user stories and functional and non-functional requirements, facilitated team communication and provided guidance to team members. I have built a README file for the project repository that summarizes all installation instructions, documentation, and project tech involved. I spearheaded the web design components by creating Figma prototypes for the frontend, and implementing an account creation feature.
Wei Liang Tiew	220427347	Undergrad	Junior	Web Dev		I have created a page containing frequently asked questions in the website. The questions are created with the contribution of multiple team members including myself, and are sorted under a drop down menu. I have also created part of the web design's prototype homepage and I hope I can continue working on it next trimester.

Evoleon Mobile Application

Overview

The Evoleon App will help EV owners better plan their trips by identifying optimal EV charging stations as waypoints on their journey and provide them relevant information about those charging stations.

Goals & Objectives

The goal of this project is to be able to design and implement a mobile app (Android and IOS) to help consumers identify nearby charging locations. Although there are existing products that are similar, here are a few examples of what the app may offer in addition to the core function of locating a socket:

- Providing additional information and filtering of stations based on type (EV vs hydrogen, for example), information on the source of the power (direct solar, grid powered, gas, diesel etc).
- Providing a full journey planner for longer trips that optimizes for reducing charge time, cost and environmental impact along the route.
- Ability to incorporate your usage data with current fuel prices, cost of maintenance etc and provide an indication of real savings for running the vehicle.

Aims this Trimester

The aim this trimester is to continue implementing the designs created by previous teams and increase the applications functionality. A basic version of the app is currently working but it only has a few screens implemented and the functionality is very limited. Furthermore, the team aims to implement policies for shared coding practices to provide future teams with detailed references.

Deliverables

- Work on adding real EV Location data into the new Firestore locations database.
- Create a Navigation System for the applications map to travel to a selected EV Charger.
- Add an option to filter EV chargers on the map based on amenities stored in database for that EV charging location.
- Move the hamburger menu from the top left of the screen to a menu at the bottom of the screen, similar to the Figma designs.
- Complete a cyber security review of the app’s authentication process, data storage, code in GitHub repository, and apps terms and conditions.
- Add the process to reset a user’s password or delete an account.
- Continue adding user interface code for the applications pages.

Completion Summary

The team created a significant number of user stories, and team members divided up the user stories into individual tasks. Majority of the team focused on the application development while a small portion of the team focused on enhancing the current design plans to align them more with the EVCFLO branding guidelines. The list below outlines the team's main achievements this trimester:

- Updated the "Map" Screen by populating the EV charging station with real data from an external database.

- Completed security review of Firestore database to ensure user details are not compromised.
- Implemented "About" Screen providing an overview of the application.
- Implemented functionality to update the application's version.
- Implemented "Terms and Conditions" and "Privacy Policy" Screens.
- Created password reset functionalities allowing users to reset their passwords if required.
- Added functionality to delete user account upon request.
- Implemented "User Details Update" Screen that allows users to change their personal details.
- Created a central Documents directory within the GitHub Repository and added policy documents in markdown.
- Updated GitHub repo readme to include a linking directory to the new policy documents.

Showcase Video

Here you can view the showcase video for the Evoleon App project: Evoleon Showcase. (https://youtu.be/PBy32WonKms)

Future Deliverables

- Convert application to beta mode and host it on play store allowing users to access and test its features to provide feedback.
- Increase communication and cross collaboration between the EVCFLO and Evoleon team to improve upon both projects' work streams such as merging the backend databases together.
- Add functionality to filter the EV charging stations based on amenities available nearby.
- Implement and update user interface code for the application pages based on the new high-fidelity Figma designs created in Trimester 1 2023.
- Expand and add new features and functionalities to the overall Evoleon application.

Tech Stack & Key Resources

- React
- Typescript
- GitHub (https://github.com/Chameleon-company/EVCFLO)
- Firebase and Firestore (https://firebase.google.com/)
- GitHub (https://github.com/Chameleon-company/Evoleon)
- Trello (https://trello.com/b/t7wDcKR8/evolean-app-project)

Note, login credentials and administration rights for these accounts have been passed onto the incoming leadership team and are contained within the Chameleon Resource Access document which can be found within the Chameleon Leadership Channels files.

Evoleon App Project Members Contributions

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Mick Wiedermann	222058299	Undergrad	Senior	App Dev, Project	Yes	Updated the Evoleon GitHub repo merging and resolving resulting conflicts before cloning to Chameleon (was separate). Created the current trello board (previous board was seperate to Chameleon). Created sprint planning documents and held sprint planning meetings. Added new features to the Evoleon App including the new About & Privacy Screens. Revamped the Chameleon Documents repo with a detailed read me and linking directory. Created Chameleon wide GitHub best practice policy. Created other how to and best practice documents, organise and host weekly meetings, mentored and guided team members.
Joel Murphy-Dyer	221081809	Undergrad	Junior	App Dev, Project	Yes	As a project lead for the application development team, I have implemented and coded a terms and conditions page to the app within the signup screen. Additionally, I have maintained regular contact with the team members on how they are progressing with their work. I also implemented the email verification upon a users sign-up with Tenzin, so when a user signs-up/in an email will be sent to them for them to verify. I also implemented and coded the content that Mick had made into the terms and conditions page to ensure it was coded properly to match the layout in the T&Cs document. Finally, being a project lead I tried to be an active member within the group and provide my assistance when asked.
Jordan Sam Cooke	220208777	Undergrad	Junior	App Dev	Co.	Added features which include password reset and data deletion of firebase data. Working on refactoring the repository with new guidelines documents that I'm the lead developer of; in order to facilitate handover of codebase to new Chameleon members.
Kanishk Rajvanshi	222486026	Postgrad	Junior	App Dev		Being a member of the Chameleon Evoleon App Team I worked on refactoring the code to make code more efficient. Have also added relevant comments in the code for better readability. Apart from this have done refactoring of the code following the coding practice document prepared by my colleagues.
Khanh Nguyen Nguyen	221393506	Undergrad	Junior	App Dev		Being a member of the Chameleon Evoleon App Project I was able to worked on creating the code for a booking mechanism that allows the user to book in their spot to charge their cars in different locations in Australia, being able to pay on the spot and being able to see information like how much will be charged, how much it will costm ect, but still have a few things to work on such as the authenticating feature, payment program.
Mohammed Khalid M J Al-Malki	220499349	Undergrad	Junior	App Dev		I'm in charge of charging status part. To complete this mission, I start writing coding to carry out a future in order to show the current charging status. I've done some tests on coding and they are still getting some errors to exporting the best result. And i am attending meetings with my teammates and collaborating with them to find solutions and new ideas for our project.
Rodney Tenzin Tsewang Annand	221156479	Undergrad	Junior	App Dev		Redesigning the Map view and adding cross-platform functionality to it. Reworking the logic and storage of favorite markers. Scraped and added a JSON database of current markers from plugshare. Added Security rules to the Firebase's Firestore instance to make sure users can't access other people's data via the API. A little bit of a tidy and removed some unused functions. Created an informative video on Firebase features for team members. Started the integration of Firebase into the EVCFLO website which included a login page, logout function, and user page. Styled and updated other pages of the app so the navigation flowed a bit better. Worked with Joel to update the sign-in function so that verification emails were sent out during the sign-up procedure.
Wei Liang Tiew	220427347	Undergrad	Junior	App Dev, Design		Created a FAQ page for the website, still further work required. Participate in the weekly meetings contibuting to the general discussion and helping team members where I can.

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Aanan Abdullah	220499062	Undergrad	Junior	App Dev	Yes	As part of the application development team, I implemented the code for a update user details screen where users can change their personal details as necessary. I also implemented a Help and Support screen for Frequently Asked Questions (FAQ) about EVs. Moreover, as the application development leader, I provided guidance to other team members to understand how to breakdown the user stories and assigned any necessary tasks. Finally, I contributed to the handover documents and showcase video.
Asher Lam	221254112	Undergrad	Junior	Web Dev		I am under the app development team, my contribution so far has been researching methods on implement my design on availability on charging station.I am helping out with handover documents aswell as providing quality assurance checks on all documents in chameleon documents ready for juniors to ensure that all work meets the standard quailty.

Melbourne Open Data

Overview

The City of Melbourne has been an Australian leader in Open Data since 2014. The City of Melbourne initiated this project with Deakin to support greater use of their Open Data by businesses, researchers, and software developers. Open Data is a component of their smart cities' strategy.

Melbourne Open Data Playground Website (https://master-mop-busaytgm.ts.gateway.dev/)

Trello Board (https://trello.com/b/ln6GEN45/melbourne-city)

GitHub (https://github.com/Chameleon-company/MOP-Code)

Goals & Objectives

This project entails the development of an educational platform that showcases the practical applications of Open Data, specifically designed to cater to the needs of various stakeholders, such as industry professionals, government entities, and academic researchers. The primary objective of this project is to leverage the utilisation of the City of Melbourne's Open Data (https://data.melbourne.vic.gov.au/pages/home/).

The long-term goal is to data useage, facilitating innovative and informed solutions to contemporary challenges across the City of Melbourne council area.

Aims this Trimester

The initial main focus is to read the documentation for the new API for the Melbourne Open Data Playground, and systematically work through each published (and yet to be published) notebooks and modify the code so that they will run if downloaded.

The aim for the Data Science team is to create a new set of use cases that fit within the 3 defined key areas of interest from the City Of Melbourne. The team is planning to complete a full set of use cases, and also have enough in the backlog for the next trimester when students will be focussed on InnoFes.

The web team is aiming to further streamline the processes for which the notebooks are published, and working with the design team to optimise the device browsing of our website. As part of the approach to the website, the cyber security team will also be scrutinising all apsects of our public-facing site to look for areas of vunerabilities that will need to be rectified. The other main focus for the leadership is to document and streamline the way that the project is documented for handover at the end of each trimester.

Deliverables

- Update the API on all published notebooks (ready to be published again), and notebooks ready for publishing.
- Implement a human-readable URL
- Identify vulnerabilities in the source code, python code and database then document a roadmap to mitigatethem
- Implement mobile views for the website
- Complete analysis on multiple use cases (ready for publishing)
- Create multiple new use cases, allowing enough in the backlog for the next trimester
- Publish notebooks that are ready to be published
- Cleaner resources for the handover procedures for MOP
- Add more functionality to the website
- Implement some interactivity with JavaScript
- Fix the lingering deisgn / css issues within the website

Completion Summary

The Data Science team has successfully completed repointing some of the APIs for the completed use cases ready to be republished, and also developed new use case ideas and started coding them up in jupyter. The Cyber Security team have found vunerabilities, and are continuously documenting how the various approaches have been approached, as well ashow should be approached for when transferring the team to the other Chameleon projects. The Web Dev team have worked on making the styling for the published use cases match the over all theme, published backlog use cases and have been working on the mobile functionality for the website. The web team and design team have also been liaising for the next steps to integrate the team designs.

The list below outlines the team's main achievements so far:

- Completed repointing some of the published use case APIs.
- Completed defining a series of use cases to be explored by the DS team.
- Presented new use case ideas to the client at the City Of Melbourne.
- The source code has been inspected for vulnerabilities.

- Ports for the website have been scanned (5 open ports).
- The website has been stress tested for high amounts of traffic in small periods of time.
- Traversal attacks have been tested and do fail against the website.
- Cleaned up use cases to match new themes
- Updated mobile views and accessibility for the MOP website
- Published new use cases
- Created a more detailed guide for the publishing of new use cases in the future
- Discussed new design plans with the design team to further update the website

Showcase Video

Here you can view the showcase video for the Melbourne Open data project: MOP Showcase Video (https://deakin365-my.sharepoint.com/:v:/g/personal/ahollingworth_deakin_edu_au/EUGt2DRkD6RGr6KwiglskAcBbqeOvqbCWyqQRUAtdmqNpA?e=5eJgAg)

Future Deliverables

- Continue working with the City of Melbourne to develop relevant and useful use cases.
- Edit and change the use case table containers so that in mobile view only, the title makes use of the empty space the dots have created.
- Make the text scale properly to different screen sizes dynamically. Keep design easy to read and view. Exapnd this to other tables with similar approaches of space conservation and visability.
- Add animations to user interaction with buttons and other similar objects on the page.
- Fix MOP Website Google Cloud Platform pipeline (requires knowledge of GCP itself and Docker, which is used for building the website -- perhaps try to recruit someone with knowledge of these technologies)
- Publish use cases finalized in T1 2023
- Update "About" page with contributors of the MOP project in T2 2023
- Obtain new domain name for the production site (for example: something such as "opendataplayground.deakin.edu" or similar)
- Security team to check the updated contact page for any security issues

Tech Stack & Key Resources

- python
- ▪ folium
- ▪ geopandas
- jupyter
- Google Cloud Services
- NPM
- Gauge
- Docker
- Miniconda
- Burpsuite
- Owasp zap
- Siege
- Parrot Os
- bettercap
- hping3

Github Project Links (Completed new use cases)

- UHI Effect Reduction (https://github.com/Chameleon-company/MOP-Code/blob/master/datascience/usecases/READY%20TO%20PUBLISH/UHI_effect_reduction_use_case(Final).ipynb) | Amy Tran & Siyu Ai
- Flexible return to Office Otions (https://github.com/Chameleon-company/MOP-Code/blob/master/datascience/usecases/READY%20TO%20PUBLISH/flexible-return-to-office-options.ipynb) | Angie Hollingworth
- Live Events and the Effect on Foot Traffic and Businesses (https://github.com/Chameleon-company/MOP-Code/blob/master/datascience/usecases/READY%20TO%20PUBLISH/use-case-live-events-and-the-effect-on-foot-traffic-and-business.ipynb) | Keefe Alpay & Nathan Clee
- Disability Transport Analysis (https://github.com/Chameleon-company/MOP-Code/blob/master/datascience/usecases/READY%20TO%20PUBLISH/usecase-Disability_TransportAnalysis.ipynb) | Adam Bullivant
- Business & Activity (https://github.com/Chameleon-company/MOP-Code/blob/master/datascience/usecases/READY%20TO%20PUBLISH/usecase-supporting-local-businesses-surrounding-tourist-attractions%20(1).ipynb) | Kruthi Shetty & Vinit Shetty

Note, login credentials and administration rights for these accounts have been passed onto the incoming leadership team and are contained within the Chameleon Resource Access document which can be found within the Chameleon Leadership Channels files.

Project Members Contributions

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Angie Hollingworth	222053804	Undergrad	Senior	Data Science, Security, Board	Yes	I ran a workshop on working with APIs, presented the teams initial use case ideas to the client, ran two workshops on how to develop a use case, designed and presented the final client presentation, finsihed a partially finished use case, repointed an API, developed and completed another use case, restructured the MOP-Code Repo, created a python tool (https://github.com/Chameleon-company/MOP-Code/blob/master/datascience/usecases/meta_to_json.py) to create the META tags in JSON, helped students throughout the trimester and mentored my team of team leads, as well my board commitments. The use case I developed and finished **Flexible Return to Office Options** combined co-working spaces with the local business (cafes, bars, restaurants etc.) in conjunction with team journey planning as a means to get groups of workers moving and working throughout the CBD suporting local businesses.

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Abhishek Bajaj	221034312	Undergrad	Junior	Data Science	Yes	Alongside STEVEN NGUYEN we repointed the New Business Location use case. Repointing the use case required updating to version 2 of the City of Melbourne's API. We then needed to format the dataframe to the same output. This required us filter the dataframe. As well, we needed to form the correct choropleth map which required us to format the geojson in combination with the dataframe. I have also worked on gathering the information to create Company's LinkedIn Page. I have actively took part in group discussions and given my feedback to group work. I have brainstormed with the data science Team for new use case ideas, give my use case idea and provided my feedback on some of my peers' ideas. I also actively took part in Capstone Shadowing Program as a Junior Coordinator and helped the students find information regarding the company and its projects.
Vaibhav Kashyap	220641102	Undergrad	Junior	Data Science	Yes	In our use case, our main objective was to compare the progress and development of Melbourne municipality with other major cities in Australia. We initially focused on gathering datasets specifically related to Melbourne, but as we delved deeper into our research, we realized the importance of obtaining relevant datasets for other cities as well. During this project, I had the opportunity to mentor a student in a shadowing program. I introduced the student to our company and provided a comprehensive understanding of how things worked. I also motivated the student to consider joining our data science team while encouraging them to explore other options within Chameleon, such as web development and EV tools.
Vinit Karunakar Shetty	221426969	Undergrad	Senior	Data Science	Yes	**Use Case - Supporting Local Businesses Surrounding Tourist Attractions** - We gathered datasets containing information about landmarks such as memorials, art, and sculptures, as well as cafes, restaurants, and bistro seating from Melbourne Open data. The goal is to provide tourists with a comprehensive overview of popular tourist spots and assist them in planning their trips efficiently. By displaying these attractions on a map using custom icons, visitors can easily determine their location and create an itinerary. This benefits local businesses by increasing their visibility and generating more revenue. Visualizations highlight popular landmarks, helping tourists make informed decisions. A map-based application that showcases eateries and tourist hotspots in Melbourne enables visitors to optimize their time and avoid disappointments. By utilizing technology, we enhance the tourist experience and support local businesses.
Kruthi Shetty	222067974	Postgrad	Junior	Data Science		**Use Case - Supporting Local Businesses Surrounding Tourist Attractions** - We gathered datasets containing information about landmarks such as memorials, art, and sculptures, as well as cafes, restaurants, and bistro seating from Melbourne Open data. The goal is to provide tourists with a comprehensive overview of popular tourist spots and assist them in planning their trips efficiently. By displaying these attractions on a map using custom icons, visitors can easily determine their location and create an itinerary. This benefits local businesses by increasing their visibility and generating more revenue. Visualizations highlight popular landmarks, helping tourists make informed decisions. A map-based application that showcases eateries and tourist hotspots in Melbourne enables visitors to optimize their time and avoid disappointments. By utilizing technology, we enhance the tourist experience and support local businesses.
Keefe Euler Alpay	221243463	Undergrad	Junior	Data Science		My personal achievements were setting up the introduction to my use case, these includes the scenario, the exploratory data analysis objectives, the goals for this analysis, the strategic benefits for the city of Melbourne and I updated the URL links to the used datasets to reflect the ones we have investigated. I was responsible for all the Folium maps in the use case, and I proofread the entire report, fixing grammatical inconsistencies and spelling mistakes. Outside of my use case, I have contributed to all pages of the MOP_Ideation_T1_2023 Excel sheet, I attended and contributed to the last team meeting with Angie and I practiced using the Folium library on the On-street Parking Bay Sensors dataset. I partnered with Nathan to finish the use case called Live events and the effect on foot traffic and business this trimester. The use case analysed the foot traffic near the MCG, Marvel Stadium, The Comic's Lounge Comedy Club and The Black Rabbit bar/club. We have analysed and explained the increase in foot traffic using the Pedestrian Counting System datasets found in the City of Melbourne Open Data website.
Nathan Graham Clee	221255235	Undergrad	Junior	Data Science		**Use case Live events and the effect on foot traffic and business (Nathan and Keefe)** This use case analysed foot traffic near locations where live events would occur Marvel stadium, near Flinders Street Station towards the Melbourne Cricket Ground (MCG), and nearby clubs with music and comedy clubs. It also Identifies the volume of pedestrian traffic during live events and predicts the forecast for live events in a graph by using examples of events from the past. Our use case observes foot traffic and identifies any large spikes; it then looks at why these spikes occur. Our use case helps find public events that bring in a large foot traffic and we analyse why and when this occurs. Lastly, it looks into how businesses can use this increase in foot traffic to expand their sales. **Personal Achievements** Set up the new APIs, Set up GitHub, Replace the API path, Found a solution to use case, Listed all working foot traffic sensors, Found the closest senor to the MCG, Graphed foot traffic, Found two live events that increased foot traffic, Made a graph to show the spikes on the largest day, Evaluated increase means, Found the closest working sensor to the Marvel stadium, Graphed foot traffic from each day, Looked at the huge spike, Graphed spike to prove it was the game, Found the closest sensors to the live music venues, Decided on the two clubs to use, Graphed the club's foot traffic, Graphed the largest spikes, Found why that days were so popular at that time, Updated code so the graph always shows the same week, Wrote descriptions for all coding blocks, Wrote conclusion to whole use case, Fixed up formatting, Submitted to the company's GitHub.
Shanuk Julian Devamulla	221159324	Undergrad	Junior	Data Science		I focused on reworking the pedestrian traffic use case so that it could accept the latest data from Open Data Melbourne. I rewrote the API functions for sensor locations and the pedestrian counting. I then focused on making sure the rest of the notebook accepted the data without error. A lot of errors cropped up however with a lot of troubleshooting, I was able to complete the work and produce a deliverable for the client. Trello link (https://trello.com/c/vRElPeyW/205-pedestrian-traffic-analysis-new-api)
Siyu Ai	223008124	Postgrad	Junior	Data Science		**UHI Effect Reduction use case** aim to help urban planners in urban greening work, by looking for areas that are more seriously affected by the urban heat island effect in potential roadways, and more intuitively understand the priority of greening when making plans. **Personal Achievements:** Successfully set up a new GitHub playground, Trello for use case, determined the data set needed for the use case, also set up new API, performed data extraction, data cleaning and transformation, and performed data visualization through quantitative scoring.
Steven Nguyen	222337088	Undergrad	Junior	Data Science		**Personal Achievement**. Alongside Abhishek Bajaj we repointed the New Business Location use case. Repointing the use case required updating to version 2 of the City of Melbourne's API. We then needed to format the dataframe to the same output. This required us filter the dataframe. As well, we needed to form the correct choropleth map which required us to format the geojson in combination with the dataframe. As well, I assisted other team members with issues they had during their project when it came to repointing the API.

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Adam James Bullivant	219274937	Undergrad	Senior	Data Science		Throughout the trimester in the Data Science team, I completed a new use case - **Disability Transport Analysis**. This use case reveals key insights into public transport lines and footpaths around Melbourne, being useful for those with disabilities. The key features involve visualising the public transport lines based on their disability features, and also analysing footpaths based on their gradients (using a linear colour scale). The final case was an interactive map that allows users to visualise key route and mapping data based on disability features. Furthermore, I repointed x2 API's from existing use cases, and finalised my existing use case from Trimester 3 2022 so it is now ready to be published to the website.
Andrew Tilling	220554762	Postgrad	Senior	Data Science		Was an active member of the MOP project throughout the trimester, mentoring students and offering both academic and professional advice, successfully worked on two use cases repointing the APIs to the CoM new platform and actively participated in use case ideation creating new use cases for the team to work on.
Tuan Minh Vu	219595908	Undergrad	Senior	Data Science		**Bicycle Traffic New road Impacts - St Kilda Road**. We focused on analyzing and interpreting bike count data for St. Kilda road, Melbourne. This data was crucial to understanding the cycling patterns and habits along this route, informing decisions about infrastructure planning, safety measures, and traffic management. This use case aims at understanding the cycling trends on the St. Kilda road and its implications for infrastructure planning and sustainability. The usage patterns discerned from the data serve to guide decisions on infrastructure development and management, such as the need for bike lane expansion, maintenance scheduling, and safety measures. By analyzing hourly bike count data, peak usage times were identified, which would be crucial for traffic management strategies, such as potentially modifying vehicle lane usage during these peak cycling times to ensure cyclists' safety and smooth traffic flow.
Amy Tran	213358131	Undergrad	Junior	Data Science		**UHI Effect Reduction** use case aims to deliver a tool for urban planner to tackle urban heat island problem by mapping the distribution of green resources against projected energy consumption around the city of Melbourne. The proposed design offers a scoring system which is supposed to assist urban planner in identifying most vulnerable areas where greening work should be prioritised. **Personal Achievements**: I proposed the idea of a quantitative scoring system, successfully set up the new APIs, performed data extraction, data cleaning and transformation to support further analysis, and created heatmap visualisations. I also set up the initial coding workbook, wrote comments for coding blocks and completed the use case template. Finally, I administered the use case submission to finalise.
Tate Remzi-Johnson	221484111	Undergrad	Senior	Dev Team, Project Assit. Lead	Yes	Assisted other members of the web development team with their work. Published reworked use cases, updated the home page's links to the Melbourne Open Data API, along with Muhammed Nihal. Published use cases which were finalized in the previous trimester and also made a more in-depth guide for the publishing of use cases, to help make the task clearer in future trimesters. Sorted out some files which the development team no longer had access to, in order to find out about previous changes made to the webapp. Fixed up errors with the acceptance tests, and also attempted to fix up the Google Cloud Platform pipeline.
Jiahao Pan	218562599	Postgrad	Junior	Dev Team		Being a member of City Of Melbourne, I fixed old design on 4 pages and make sure all of them follow up the newest style. Then I was working on publishing new user cases and finding out how to solve the error, at last, I worked on make the contact page functional which allow users to send email via our web app.
Mihili Isurika Geeganage Geeganagama Arachchige	222398483	Undergrad	Junior	Dev Team		As a member of the City of Melbourne, I changed the previous designs on three pages and updated them with new styles. I have updated styles of event disruption, green roofs, and ideal green wall location identification pages to improve attraction and user friendliness.
Roshan Jose	221499484	Postgrad	Junior	Dev Team		As member of the City of Melbourne Open Data Dev Team i was assigned to Design Team and worked on fixing the website in mobile view.I worked on fixing the Use case Difficulty section to show the desired difficulty dot instead of the text inside a bubble and also fixed font size in mobile view for better visibility for the user.
Syed Kareemullah	220462373	Undergrad	Junior	Dev Team		Being a member of the Chameleon Web Development Team I was in a group to fix the Old designs so in First Phase of the project, I reviewed three user cases (Parking Availability , Bicycle networks and Road safety Part 1, Bicycle networks and Road Safety Part 2) and fixed their designs to make them more consistent and appealing to the user. As we progressed through the project, I was asked by the leadership team that to change the inline CSS into different classes so that in future the new members can use those classes to enhance the overall aesthetics of the website, As this is considered in good coding practices, So during the second part I worked on different classes for different pages.
Muhammed Nihal	221461233	Postgrad	Junior	Dev Team		**Fixing Datasets Table** Being a part of the MOP Web Development team, I worked on adding the datasets under each usecases, I fixed up the connection of API with the index page, fixed the Dataset table of the index page and populated the dataset table with the API. Also I created the download links based on each datasets. Fixed up the show more button to display all the datasets other than the initial one's. Did a small change on the download buttons of the datasets.
Matthew Hall	220236048	Undergrad	Senior	Dev Team		**Mobile Views and Accessibility.** The mobile view portion of the page had many issues. There was a focus on fixing design issues and technical problems. These ranged from the navigation button not working properly, buttons not appearing, changes in non-mobile view, and more. In regards to design, there were issues relating to colour schemes, background colour, spacing issues, syntax and text scaling issues. My team managed to develop and fix the necessary technical changes but also identify and provide solutions to the design issues as well. This means people who are on their phones should find it far easier to view and navigate the page. I also helped lead my team in this regard identifying the necessary changes and providing technical support as well as overall project direction.
Pramodya Sathsarani Senanayaka Jayasundara Senanayaka	221308586	Postgrad	Senior	Dev Team		As a member of web and app development team of chameleon company my responsibility was to translate the use case and publish. In order to complete this task I first setup the work environment for the project. After that I edited the search.jason file to translate the use case. Throughout the project I kept contious commutation with the group leader and the other group members. I followed the trello broad to keep the track with the project flow. And whenever my team members needed my help I was willingly helping them throughout the project.
Sharini Mahisha De Mel	217425821	Undergrad	Senior	Dev Team		Being a member of the Chameleon Web Development Team I was in a group to fix mobile views. In the first phase of the project I worked on the navigation of the Hamburg menu and fixed it to make them more consistent and appealing to the user for mobile view. The second phase of the project I worked on the Use case difficulties to show the difficulty dot instead of the text when in mobile view to save space, and also changing the text into buttons in the hamburger menu when viewing a the current page.

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Izaz Ishaque	221005704	Undergrad	Junior	Cyber Security	Yes	My contirbutions to this team came from stress testing the website to the point where it started to fail with requests (approximately 10000 users), I also attacked the website with many different attacks such as traversal attacks, denial of service attacks, SSL stripping, Fuzzing and Method Validation, I have also provided resources to the team to assist with future attacks. All attacks that were mentioned have had reports written about them within teams and can be used as a starting point or as a learning experience for the next students of Chameleon
Lucas Kocon	218510242	Undergrad	Junior	Cyber Security		My contributions have come from finding and fixing vulnerabilities in the source code. I had found that the Content Security Policy that was responsible for thwarting common web attacks, was actually very weak and not stopping these attacks. So I had committed to fixing this by creating local simulations and changed the policy to protect the site from online scripting attacks. I've created resources to educate on how these simulations can be used for the team, how the Content Security Policy system works to protect the site and how we can progressively adjust it for security as the project develops.
Zachary Max Kein	220277143	Undergrad	Junior	Cyber Security		My contributions were using port scans, vulnerability scans, and creating a write up of the work we completed this trimester for the next juniors. I was responsible for finding each vulnerability in the MOP website and discussing ways to either prevent the attack or bolster security to prepare for it. I created documentation for each piece of work I created with formal writing that will assist in the understanding of each vulnerability in the MOP website.

Chameleon Website

Overview

The website for the Chameleon company overall aims to publicise the achievements and progress of Chameleon overall and showcase the sub-companies within it, one of the best ways to do this is through a website.

Goals & Objectives

The main objectives of this website is to provide a one-stop for all – where it includes all the other sub-companies' infortmation, objectives and links. We want to be able to use this website to advocate for the company, and be able to promote it while having the website be visually appealing, and comes with easy functionality.

Aims this Trimester

The aim for this trimester will be to modify the front-end and the back-end of the website majority, and make it optimised for mobile access. While the backend hasn't been implemented, it means we have a lot of scope to implement this from scratch. This includes setting up the staff log-in portal, implementing API's with SendGrid and Mailchimp and creating a client portal.

For the front-end of the website, we aim to make the website more appealing, with the design and web development skills of the students. We want to deliver a high-quality attrractive, easy to navigate and overall simple aesthetic of the website. This also means through using correct wireframing techniques within the design team, agreeing on a solid design that meets this criteria before implementing.

It will be imporant for the Chameleon Website to present all the other projects for the Chameleon company on the website, while this has currently been started – links have not been provided.

Overall, reducing awkwardness on the website and providing a smooth experience is the overall aim for this trimester.

Deliverables

- Implement a more aesthetic and navigation friendly design
- Work on the blogging section of the website – add links to other projects
- Build the staff portal and implement the API's behind it to get it running
- Reevaluate the Resources tab to see what can be added and removed from it
- Work on the fonts used and colour scheme of the website, and adding in different components to the website design
- Implement mobile views for the website
- Implement SEO strategy to rank the website higher in web search engines
- Building a client user account portal to view progress, updates and services of the Chameleon Projects

Completion Summary Web Development Team

- Researched on databases so that they can be implemented within our user login pages, and along with this how API's can be used to implement this within our website.
- Making our website more intuative and interactive for users
- Created a SRS use cases document to continue using throughout the trimester.
- Analysed for SEO startegy works so our website can be presented higher on a search engine.
- Completed frontend coding for majority of the website pages to coordinate with the designs from design team including:
  - Homepage
  - Login
  - Signup
  - Forgot password
  - Emerging tech
  - FAQ
  - Events calendar
  - Progress of project

    - Portfolio
    - Blog
- Dark and light mode implementation for FAQ page for an example and implementing with design.
- Backend code for signup, login and logout – apis implemented with firebase, not working however debugging this code will allow this to work.

Completion Summary Design Team

- Design team established a design information section for each project.
- Chameleon Website designs created for all web pages, including 3 variations of light, dark and design theme.
- Re-design of the Chameleon Mobile Website, with variations of colour scheme and design theme.
- Development of the EV Adoption tools website, with half of site pages complete.
- Re-design and prototype of Evoleon Mobile application has completed, with 2 navigation variations and video walkthorough demonstration recorded.
- Melbourne Open Data website tasks established.

Showcase Video

Here you can view the showcase video for the Chameleon Website project: Chameleon Website Showcase. (https://video.deakin.edu.au/media/t/1_xzqzybco)

Future Deliverables:

Web Development Team

- Implement pop up email notification
- Implement dark and light mode variations for each page
- Implement mobile design pages for each page
- Ensure all pages are responsive
- Work on SEO strategy to get website higher in search web engines
- Look into database and set it up for login portals
- Deploy website

Design Team

- Create a new logo for the Chameleon website
- Create a new logo for MOP website.
- Create new wireframe (low and high fidelity) for MOP.
- Continue working on Low, high fidelity for the EV adoption website.

Tech Stack & Key Resources

- React
- HTML
- CSS
- JavaScript
- Git
- Npm
- Figma
- Google Cloud Services
- Trello board Web dev team (https://trello.com/invite/b/wbieC0bc/ATTI73532c2c63eeb895fd2ac6c5a9b137a73DF94A0D/chameleon-website)
- Trello board Design team (https://trello.com/invite/b/IIXBWOAV/ATTI31fdf14d6007fe8edc09f324c895bac9E7CEB163/chameleon-design)

Note, login credentials and administration rights for these accounts have been passed onto the incoming leadership team and are contained within the Chameleon Resource Access document which can be found within the Chameleon Leadership Channels files.

Chameleon Website App Project Members Contributions

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Janvi Gupta	221220324	Undergrad	Senior	Project Lead, Board	Yes	Being the team leader, i kept the Trello board up-to date, hosted and compelted meeting minutes, helped did the lo-fi and hi-fi designs for design team, for Chameleon Website and EV team. I also edited pages on the website - did the frontend coding for emerging tech page, progress of report including contributor names from this project, FAq page (light and dark mode) and signup page. I also did the backend code for the singup, login and logout pages. Additionally, i also reviewed pull requests and made sure the website was running smoothly including the routing and all links in between every merge.
Navin Dharmarajan	222475715	Post Grad	Junior	Dev Team	Yes	I've made major contributions to the Chameleon website project, establishing a mono repo, integrating API with React, and using ESLint for code quality. I've written a thorough README, guided peers in understanding the project, and kept the team updated on git changes. Additionally, I've dedicated time to reviewing all code pull requests submitted in git. My collaboration on fundamental documents like the SRS and Database design has further solidified project requirements.
Antony Raju	221471405	Post Grad	Junior	Dev Team		I am on the development team and i have done a research on the Search Engine Optimization. I have submitted my research about how to implement new SEO strategies and what all keywords can be used to increase the ranking of the Chameleon website. I designed the forgot password page for the Chameleon Website using the React js and Bootstrap. i also submitted a research about CSS and Bootstrap to identify which is better for the Chameleon Website. while designing the forgot password page , i tried to reduce vulnerabilities due to insecure design or design flaws.

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Davinderjit Singh	219606745	Undergrad	Junior	Dev Team		Researched on the resource page, research on SEO strategy and important keywords for search engine optimization, re-designed the chameleon profile page (low-fi and hi-fi). Researched purpose of the Resource page, why is it there and how we can improve the funcionality of it. Developed the About Us page for the Chameleon website using HTML, CSS and JavaScript. Uploaded the code to GitHub repository to make it live.
Bhavika Sood	218529556	Undergrad	Junior	Dev Team		I researched on what all important features can be included on the Home Page, About Us Page and Sources Tab of the website and have also developed the front-end of the mentioned tasks. Also while developing the pages I tried to make it as much dynamic as possible by making use of media queris so that the website should open properly on mobile as well and shouldn't break on different screens with different dimentions.
Jordan Reeves	217140954	Undergrad	Junior	Dev Team		So far my contributions for the team have been developing a functioning account and registration portal using firebase, implementing a database using FireStore and a creating tool for building and interacting with a local SQL database using python
Seung Hwan Kim	221393121	Undergrad	Junior	Dev Team		As a member of the database of the Chameleon website, I did research on features and components that could be added to the website to build the database. In the Chameleon website, I created a table logic for sign-up and sign-in for the database of the employee login portal and an RDBMS table used in MySQL.
ZhuoYu Li	220283605	Undergrad	Junior	Dev Team		My contributions include collaborating with team members to complete the API research report and the API research on Mailchimp report. Additionally, I implemented the header section of the website based on the high-fidelity designs provided by the design team. In the API research report, I provided sample code on how to connect MYSQL database and Firebase database. In the API research on Mailchimp report, I provided tutorials on how to use Mailchimp and included sample code.
Ziyan Zhai	221208796	Undergrad	Junior	Dev Team		At the start of the trimester, I completed 2 tasks which were called API research report(general) & API research on Mailchimp with one of my team members. Thus, attend every group meeting, and never missed any. Discussed & communicated with the team leader when the leader required me to fix the problem in my submission. In the middle of the trimester, I prepared & reviewed how to use the ReactJS module; At the end of the trimester, I completed the homepage front-end coding implementing.
Aishwarya Mariselvam	221200552	Post Grad	Senior	Dev Team		
Aye Moh Moh Shwe	220462239	Undergrad	Senior	Dev Team		
Jiankun Wang	221092755	Undergrad	Senior	Dev Team		Do the research on SendGrid and MailChimp, Learn the relevant knowledge, ready to put this knowledge into the future of the website construction work. Do the advice report for Chalcone website ， do the code for footer for Chalcone website
Mathew Ho	220271708	Undergrad	Senior	Dev Team		Completed research for the API for Chameleon with options for SendGrid and MailChimp with knowledge on which method is better used for the project. In addition, I had committed a deeper research for the API for Send Grid. Coded the front-end on Visual Studio Code with react on the Login Page and the Profile Page with research on the methods on creating the required visual structure of the code. I exported my commitments of the code onto Github.
Mayank Verma	219400263	Undergrad	Senior	Dev Team	Yes	I have Made soldi contribution this trimester which include database report, SRS document, GitHub guide, created a portfolio page of the website and work with design team to make designs for app and website pages. In the end I mentor other students in their work and given the presentation in the week 4 company presentation as well.
Qiushi Huang	221456822	Undergrad	Senior	Dev Team		
Regan Tam	219488177	Undergrad	Senior	Dev Team		Conducted research and created documents for increasing Chameleon's visibility within search engines through SEO strategies, along with research in the backend process with implementing a newsletter subscriber function. Developed two pages on the front-end based on given designs, A blog page that allows users to view blogs based on card selected, along with a calendar event page allowing users to view events based on a selected date through a calendar.
Thomas Koutsaplis	220233577	Undergrad	Senior	Dev Team		Conducted research on two commonly used email APIs for marking - MailChimp and SendGrid, and proposed which API would be suit the needs of Chameleon. I presented this research in the form of a PDF and shared it with my team leaders so that they could could reference it in their decisions for the future direction of the company. I also created a sample HTML form that implements SendGrid's API so that I could familiarise myself with how it works, and contribute to my research on the API.
Amal Paul	222197619	Post Grad	Junior	Dev team		As a member in backend and databse team of Chameleon Website i Conducted research on CSS and Bootsrap including their advantages for mobile design, also gave contribution to the database team for Login Query, researched on how to have a pop up notification box pop up on home page, Conduct a study on Client USer Portal which needed to be incorporate in the Chameleon Website, Contributed backend code for the Forgot Password API call.
Balapuwaduge Arnold Pranudda Kalpesh	222330109	Undergrad	Junior	Dev Team		
Zak Constable	220535629	Undergrad	Senior	Design Team	Yes	Finished a complete re-design of the Evoleon mobile application, consisting of 2 variations, one incorporating a footer icon navigation bar and the other utilising a ‘hamburger’ flyout style menu. Interactive prototyping was also designed, and a video demonstration walk through showcasing these prototype versions was also created. I created a Microsoft Form that can be used by the company to conduct user experience surveys. Developed Design information sections for each design project. Consolidate all design documentation into central Git repository.
Jiankun Wang	221092755	Undergrad	Senior	Dev Team		Do the research on SendGrid and MailChimp,Learn the relevant knowledge,A user guide report was written， ready to put this knowledge into the future of the website construction work. To provide feasible solutions for the additional features of the homepage in website, to write a guideline report.
Rodney Tenzin Teswang	221156479	Undergrad	Junior	Dev Team		For my main contributions see above in the App development team. For this project I implemented the firebase instance used in the mobile app into the React web app which involved creating a login page, logout function and simple user page. I also changed the navigation from redirects to use the react navigate package which allowed for a smother page transitions.

Name	Student ID	UG/PG	J/S	Team	Lead	Achievements
Jon Suwannakoot	220069966	Undergrad	Junior	Design Team	Yes	Created 6 User Personas for EV, Chameleon and MOP Projects. Helped with editing/submitting the document for Task 2.1P for Junior students. Created the Figma document on how to add the Template and uploaded it to GitHub. Created PNG files of the pictures used on Chameleon Website Homepage. Created the new logo for EV Adoption Project. Also, I made the Low-fidelity and High-fidelity design of the Chameleon website: Blog, Homepage, Resource pages (Event Calendar, FAQ and Emerging Technology), Progress of our projects. I also created Low-fidelity and high-fidelity design for EV Adoption Project: Homepage, Charger Station Map. Finally, I presented the Chameleon Website project in Weeks 5,7 and 11.
Yin Chak Yiu	219352934	Undergrad	Senior	Design Team		Created seperate figma designs for Chameleon Website mobile version, including Low-Fi, Hi-Fidelity and dark mode of Start, Login, Create account - Detail, Create account - Profile, Profile and settings page.
Ziyan Shen	219323496	Undergrad	Senior	Design Team		I created both low and high fidelity designs for the "blog", "portfolio" and "home" pages of the Chameleon website. I also created variants of these designs in two modes a bright one and a dark one. In addition, I created low-fidelity and high-fidelity designs for the Change Password page of the Chameleon website. For Chameleon Mobile, I created high and low fidelity for the homepage and blog, along with a modern color scheme. In addition I carried out the sentence about editing the title so that the routing works properly. Communicated with the team on time and discussed with the team members when I encountered problems to finalize the whole project
Nitin Singh Dogra	221265784	Undergrad	Junior	Design Team		I have created Low-fidelity and High-fidelity designs for the About Us, Portfolio, and Login pages for the Chameleon Website. I have also created light/dark mode variants for these designs. Additionally, I have created Low-fidelity and High-fidelity designs for the change password page for Chameleon Website. For Chameleon Mobile I have created Low-fidelity and High-Fidelity login, sign up, forgot password and change password pages along with a High-fidelity extended hamburger menu. Created Low-fidelity and High-fidelity Electric Charger Information page for the EV Website. I have also created a Low-fidelity footer design for the EV Website. Produced modern color scheme for MOP Website. Additionally, I have also created dark mode variants for all my Chameleon Mobile designs as well as a dark mode design for the Chameleon Website forgot password page.