How to start as a Data Science – City of Melbourne Juniors

1. About Chameleon

Chameleon is a student-led venture at Deakin University. The 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.

Currently, there are 4 divisions:

- Chameleon Security
- City of Melbourne Open Data Playground
- Chameleon Website
- EV Adoption Tools

2. About City of Melbourne

The City of Melbourne Open Data partners with The City of Melbourne to support knowledge expansion and application development among businesses, researchers and software developers. Using an educational platform 'The Melbourne Open Playground' (MOP) explores the potential applications of Open Data, aligning its initiatives with Melbourne's Smart City strategies.

3. What you need to do? (For all Data Science members)

a. Create your own use case

- For Data Science team, each member uses City of Melbourne data to develop own use cases. Use cases should align with the City of Melbourne's three predefined areas of interest (Business, Environment and Wellbeing).
- What should it be like?
  - Use case should include: Scenario, User Story, List of skills demonstrated, Introduction or background relating to the problem.
  - TEMPLATE to follow

b. Data resources: City of Melbourne Open Data

- All use cases should only use CoM datasets, not recommmend using others as it's hard to maintain.

c. How to extract data using API: Instruction

- For easier maintaining, all datasets should be extracted using API, not CSV or other local files.

d. Git

- Important folders
  - Playground: Members create own folder to upload their work. Good for weekly work evidence.
  - datascience: Important use cases and documentation
    - documentation: includes Tutorials (Trello, Github, API, etc.)
    - usecases: includes all usecases progress.
- How to use Git: Tutorial
- Create own branch: Personal branch should be created and used before merging to branch master.
- Merge branch to master process: Link

- Use case publishing guide: Guide

e. Repointing API

- API versions are updated, therefore, to maintain newest version of the use cases and data, DS team has to repointing and update new APIs for the old use cases.
- Repointing API includes update new APIs, or even re-create the use case based on its previous conditions (due to columns missing, etc.)

4. Leadership contributions (For grade HD)

- Meeting hosting and minutes taking
- Initiatives: Create documents/ideas for important teams' needs (updating API, guide for analytics process, etc.)

5. Other notes

- Checklist for onboarding: All juniors are required to follow LINK
- Remember to always screenshots your actions (join meetings, work on use case, help others, etc.) as evidence for your contribution.
- Don't forget to ask your mentors if your use case reaches the aiming grade.

Author

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