

Onboarding Checklist for New MOP Members

The following documentation provides a checklist that new members of the MOP (Data Science) team can use to understand details and expectations about the MOP project. Juniors and Seniors can use this as a resource to onboard themselves into the team and best prepare their understanding of the project and scope before beginning technical work.

Checklist Instructions

An onboarding checklist is a simple yet effective way for companies to ensure new joiners or employees are engaged in their new role effectively from day one. Chameleon's MOP Open Data Project contains various resources and requirements for students to understand before beginning technical work. New Data Science Team joiners can follow this checklist and mark off tasks in their own time to ensure they hit the ground running. All required resources and tasks are listed below for onboarding into the MOP Data Science Team.

Simply copy this tick  and paste into the "Status" column once the task has been completed.

Onboarding Checklist Part 1 (Administration & Comprehension)

Task	Instructions/Resources	Status
Know the names of your project and team leaders	There should be an announcement on the company page.	
Join Chameleon Microsoft Teams Channels and Chats	Ensure you are in the Chameleon Teams channel as well as the Data Science and Engineering team private chat. Message company leaders if you are not in these chats.	
Check Schedule	Check the schedule, this is a document which helps the team track task progress. <ul style="list-style-type: none"> MOP DS Schedule 	
Join MS Planner	Ensure you have access and have been added to the Melbourne City Trello board. <ul style="list-style-type: none"> Melbourne City Planner 	
Join GitHub	Ensure you have access and have been added to the GitHub. Fill in the spreadsheet with your details to be added. <ul style="list-style-type: none"> Spreadsheet of new GitHub members 	
Read Handover Documentation	Read the handover documentation from the previous trimester. <ul style="list-style-type: none"> T1 2024 Handover 	
Familiarisation with GitHub	Read through the GitHub and its structure to understand the repository. Specifically, the MOP-Code contains the Melbourne Open Playground Code, and the "datascience" folder inside contains relevant files to the Data Science team. <ul style="list-style-type: none"> Chameleon Repository 	

Familiarisation with Client's Data Portal and Strategic Goals	<p>Read through the CoM Open Data Portal, specifically, review different datasets inside "Browse All Data" and understand how to use the data in "Learn how to use our Data".</p> <ul style="list-style-type: none"> • Open Data Portal <p>Review the Strategic Goals of CoM to understand the future goals and plans for Melbourne.</p> <ul style="list-style-type: none"> • Strategic Goals 	
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Onboarding Checklist Part 2 (Technical & Propositions)

Task	Instructions/Resources	Status
Installation of Tools	<p>If you choose to use Conda, download these below.</p> <ul style="list-style-type: none"> • Anaconda Distribution • Miniconda <p>Download desired Git usage method.</p> <ul style="list-style-type: none"> • GitHub Desktop • Git from Terminal 	
Set Up Local Repository Environment and Use Git	<p>Follow relevant instructions in the links below to setup and clone the MOP Repository onto your local machine.</p> <ul style="list-style-type: none"> • GitHub Desktop – Tutorial • Git from Terminal – Tutorial 	
Set Up Local Python Environment	<p>If you're using Conda, the required environment can be made by following the instructions on the link below.</p> <ul style="list-style-type: none"> • Setting Up CONDA Environment <p>Furthermore, the entire process of setting up your local environment can be followed below if you are stuck with any of the above installations.</p> <ul style="list-style-type: none"> • MOP-Code/datascience/documentation/Local Machine Setup <p>There is also file that helps with utility methods to read over:</p> <ul style="list-style-type: none"> • d2i_tools.py 	
Set Up Google Colab to GitHub through gitbash	<p>If you are using Google colab, then you can set up Google colab to work with GitHub using gitbash by following the instructions on the link below.</p> <ul style="list-style-type: none"> • Google Colab to GitHub using gitbash 	
Guide to loading dataset from CoM website using API 2.1v	<p>The new API v2.1 can be used for loading datasets from the City of Melbourne website. This version does not require an API key and its 'export' endpoint method allows for unlimited API requests. Follow the instructions from the link below.</p> <ul style="list-style-type: none"> • Instructions for using API 2.1v 	

Review Data Science Team Documentation	<p>Read and examine all of the Data Science Team documentation.</p> <ul style="list-style-type: none"> Data Science Documentation <p>For reference, these are the important documents to review.</p> <ol style="list-style-type: none"> <i>DS Juniors Guidelines</i> <i>GitHub Tutorial</i> <i>Guidance on how to generate use cases</i> <i>Use case publishing guide</i> <i>Peer review work practices</i> 	
Analyse Existing Use Cases	<p>To understand how previous students have implemented use cases, review and analyse already published notebooks.</p> <ul style="list-style-type: none"> Ready to publish usecases <p>When implementing extensions or new ideas, you don't have to reinvent the wheel – examine how other students have used different libraries on CoM data is the best way to understand the core libraries and datasets you will most likely use.</p>	
Propose Extensions and New Use Cases	<p>Propose extensions to existing use cases or propose your own new use case.</p> <ul style="list-style-type: none"> Guide to generating Use Cases <p>Add your ideas to the spreadsheet for review and inclusion on the Trello board.</p>	

Onboarding Checklist Part 3 (Upskilling)

Task	Instructions/Resources	Status
GitHub	<p>If you have not used GitHub previously, this resource will teach you what you need to know.</p> <ul style="list-style-type: none"> Getting started with Github (1hr 4 min) 	
Git	<p>If you are new to Git, the following resource introduces you to the basics of Git and how to use it. This can be used as upskilling evidence.</p> <ul style="list-style-type: none"> Git Essential Training: The Basics (1hr 23min) <p>If you are relatively familiar with Git, or have done the course above, the following resource provides a more in depth course on Git's features including Branches, Merges and Remotes.</p> <ul style="list-style-type: none"> Git: Branches, Merges, and Remotes (3 hours) 	
APIs	<p>If you are new to APIs, the following resource introduces you to APIs and how to use them. This can also be used as upskilling evidence.</p> <ul style="list-style-type: none"> Learning REST APIs (1hr 6min) 	

Project Planning	<p>If you are embarking on a new use case, you will need to plan out your project. Miro is a free project planning tool that you can use. If you haven't used it before learn how with this resource and save your upskilling evidence.</p> <ul style="list-style-type: none"> • Miro (50 minutes) 	
Project Management	<p>If you are unfamiliar with project management using Agile or Scrum, use upskilling courses online so you can generate evidence of upskilling for your worklog and begin using them confidently.</p> <ul style="list-style-type: none"> • Agile Foundations (1.5 hours) • Scrum – The Basics (1 hour) 	
Libraries and Packages Used by Data Science Team	<p>If you are unfamiliar with any of the following libraries/packages, feel free to use upskilling courses online so you can generate evidence of upskilling and begin using them confidently.</p> <p><i>Core</i></p> <ul style="list-style-type: none"> • Requests <p><i>Data Engineering</i></p> <ul style="list-style-type: none"> • NumPy • Pandas <p><i>Data Science/ML</i></p> <ul style="list-style-type: none"> • Scikit-learn <p><i>Visualisation and Image Processing</i></p> <ul style="list-style-type: none"> • Matplotlib • Seaborn • Plotly <p><i>Open Data</i></p> <ul style="list-style-type: none"> • SodaPy <p><i>Geospatial</i></p> <ul style="list-style-type: none"> • PyProj • Shapely • GeoPandas • GeoPy • Folium 	

References

Hart D 2020 'How to Clone a Repo in GitHub Desktop, <https://www.youtube.com/watch?v=8yqQeTbFZUg>

Coding for Everybody 2020 'Git for Everybody: How to Clone a Repository from GitHub', <https://www.youtube.com/watch?v=CKcgniGu3tA>

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