QA LTD ON BEHALF OF LLOYDS BANKING GROUP

WELCOME PACK

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WELCOME TO INCUBATION LABS

MARCH 2024

WELCOME!

The Data Analyst Incubation (DAI) Labs programme is designed to support you in your transition towards Data Analyst and related roles within your organisation.

You should have an interest in continuing to develop and evidence your skills and understanding. This programme will support you in finding the best fitting role and in gaining awareness of areas you need continue to focus your development on.

During the programme you will develop a portfolio of analytical work. This will include working on prescribed deliverables and applying your critical thinking skills to wider business scenarios.

To complement your portfolio, your project work will be coupled with your personal reflections on your continuing professional development along with mapped evidence to illustrate your progress. Your portfolio will be useful material for interviews after the program finishes.

FROM YOUR COLLEAGUE

"Our Incubation Lab is the launchpad for your journey from learners to proficient analysts. Guided by the QA, we envision a transformative 11-week journey where your technical skills flourish into practical expertise. Together, we forge a path where confidence meets competence, preparing you to excel in the dynamic realm of analytics in the financial services.
Let's dive in, make mistakes, and emerge stronger. Together, we'll turn knowledge into confidence and dreams into careers. Get ready to unleash your potential!"

Berenika Ewart-James
Associate Director
Lloyds Banking Group

INCUBATION LABS PROGRAMME

- A new business scenario in every sprint
- Each sprint lasts 2 weeks
- 4 days development work per week
- Thursday is the Lloyds internal day (except easter)
- working independently
- expect a sprint review and retro each sprint

You will be supported by one of QA’s technical trainers during the 4 sprints to help you dig into the requirements, tackle challenges, select appropriate evidence and map your development work to a portfolio of DA technical and soft skills

- Where areas for professional development are identified that require training beyond what has been covered in the DAR programme, the trainer will assist you in sourcing appropriate resources for independent learning
- Easter break provides you with a reflection opportunity; you should review the progress you have made against your portfolio and decide which skills to prioritise in the remaining two sprints
- It is expected that learners will have differing strengths and be at varying stages of professional development. You should avoid comparing yourself with others inside your cohort and instead adopt a growth mindset

WILL ANYTHING GO WRONG?

YES!

In any real data project there will be obstacles, bits of code that you hoped would do the job but wont, someone around you will drive you slightly mad and youll probably delete a database or an important file along the way.

We expect to see these things happen and we are interested in seeing how you handle those challenges

? How will you reprioritise the planned work after finding out that something took much longer than expected?
? How will you provide adequate time in your own sprint plan for something that may take 2 or 3 goes to get right?

advising on potential future data projects and the art f the possible relevant to the business needs

Committed to staying up to date with advances in data techniques and technologies

Inquisitive approach to studying problems and improving domain knowledge of business scenarios and associated data

Considering ethics, diversity, sustainability, and data governance. Ensuring unclusivity and considered potential bias in data or interpretation

Empathy and collaborative attitude towards colleagues, considering the impact of work on stakeholders

participating in peer reviewed as a way of giving and obtaining constructive feedback

Seeking creative solutions to business problems and openness to alternative solutions

SOFT SKILLS

scoping a project from high level requirements, assessing available data and weighing up if a data solution is appropriate

completing all stages of the analytical project lifecycle adhering to agile principles

identifying and critiquing the relevant tech stack and available data, documentation for the business goal

identifying key stakeholders who wil be impacted by my work and knowing how to keep them informed and engaged

reviewed and responded appropriately to feedback on data products I had built, using feedback to improve the data products.

Identified governance risks including legal and ethical issues, plus documenting development work to enable effective oversight

leveraging capabilities of VertexAI to deploy and improve a ML model in the Cloud

supervised machine learning
timeseries forecasting
natural language processing

conducting comprehensive data analysis to produce summary statistics for decision making

querying database with SQL to answer business questions, leveraging SQL to prepare data for analysis

designing and developing interactive dashboard with tableau, end user reporting in powerBI

testing data sources to ensure its correct, accurate and relevant - improving the quality when possible

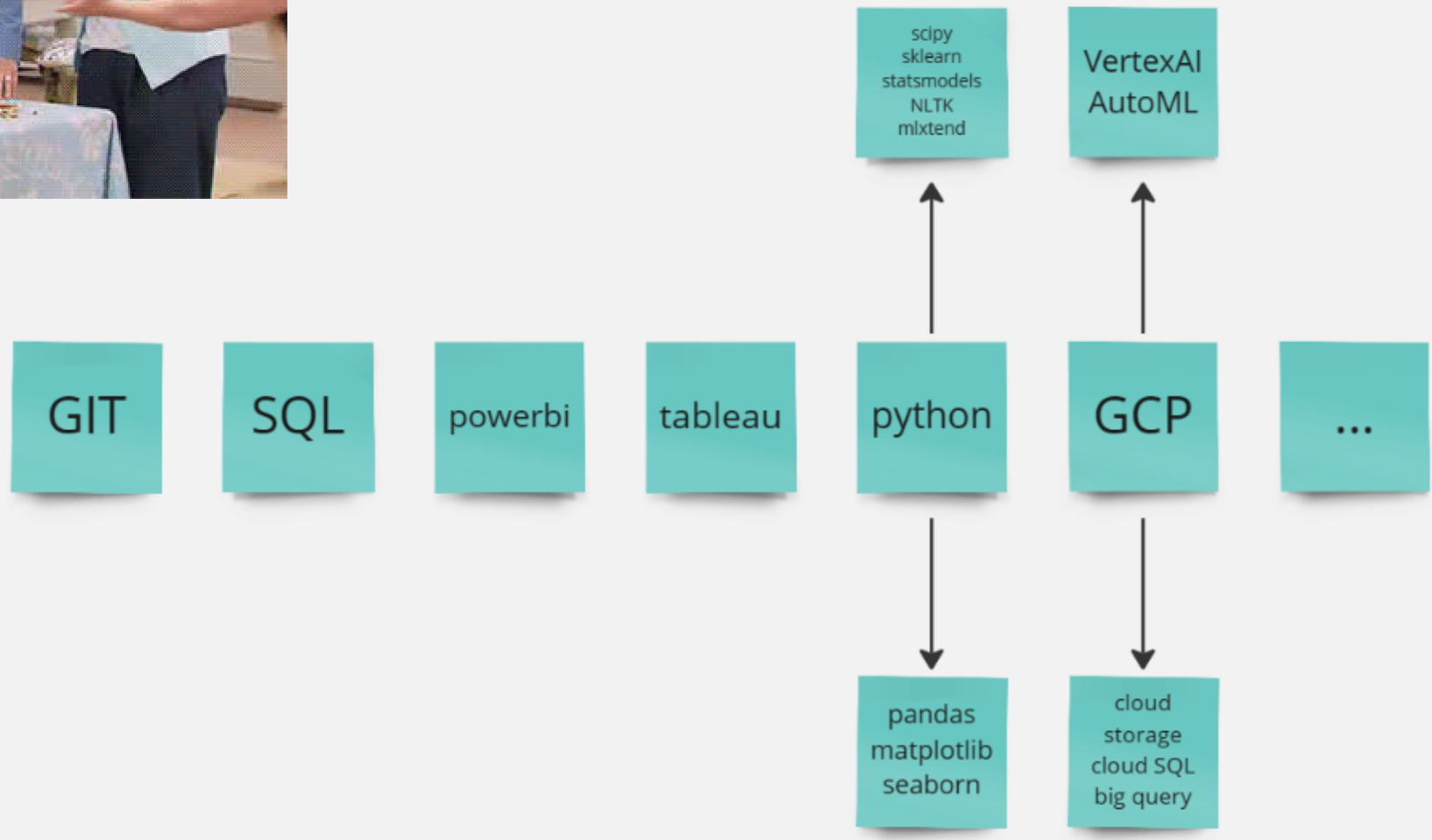
planned, prepared and merged data sources to create opportunities for analytical insights

taking steps to mitigate silo-isation and created transparency in development

loading and querying data in GCP with Big Query

TECH SKILLS

YOUR TECHNOLOGY STACK



HIGH LEVEL REQUIREMENTS

You will be given stakeholder requirements for common banking business questions:

- can we better target our marketing campaigns?
- how effective are our branches and teams?
- how can we mitigate the risk of fraud?
- what does our future liquidity look like?
- where are the opportunities for growth?
- what are customers saying about us?

Dont expect too much detail in these requirements. As an analyst you have to make assumptions, find your own answers and work around uncertainty.

PLAN YOUR SPRINT AROUND YOUR SKILLS

The first step of any successful learning program is working out what you already know and what you want to improve.

You have just seen the skills the program aims to have you evidence by the end of incubation. Some of these are already in your comfort zone but some are going to be a bit tougher

Take some time at the start of each sprint to plan the sprint goal, break down the sprint goal into smaller tasks and consider how each task relates to skills you wish to demonstrate during the forthcoming sprint.

Its a good idea to estimate how long you think each task will take you, considering where your skills are at that moment. It might be that you will plot an easier route through one part, and challenge yourself in another which could take more time to learn how on the job.
Your sprint plan can look totally different to someone else's!

TIP : USE A KANBAN BOARD FOR SPRINT PLANNING!

USING THE HELP BUTTON

In your next role you may not always have technical help available on-hand so we have come up with the idea of a HELP BUTTON to synthesise this situation

- You can use the ‘help button’ up to three times during every 2 week Sprint
- If you dont expect to use your allocated 3 button pushes in a sprint, you can loan them to your classmates

- When you attend your help button session, expect to share how you have tried to solve the problem yourself
- Dont expect someone to fix your code for you or log onto your machine in your help button session - your helper will guide you through the problem and suggest resolution

PRESENTING + GETTING FEEDBACK

At the end of every sprint you should expect some kind of sprint review activity and an assessment by your peers or yourself. This is both an opportunity for you to reflect on how the sprint went for you AND a chance to consider how what you have done in each sprint maps to your portfolio of skills.

You will also encounter a diverse set of feedback methods including presentations, videos, 121s, peer reviews, round tables, post mortems and devils advocate questions. To help your colleagues and trainer provide you constructive feedback, always keep your work well organised and clearly documented.

PROJECT DELIVERABLES

Throughout the sprints, you will produce some amazing stuff!

Dashboards and reports

Enhanced databases

Analytical models and forecasts

Technical docs & user guides

Keep in mind that the incubation program is a safe space to work independently, apply your technical skills AND critical thinking to business scenarios that are similar to those you will encounter in your future role. EVEN if you dont produce all the suggested deliverables, you will have still learnt from doing the work.

<<process is more important than product>>

SPRINT PREPARATION WORK

In the days prior to the start of the first sprint you are asked to complete self paced online learning to prepare for the incubation challenges coming your way. We recommend that you also use this time to reflect on what your strengths and weaknesses are from the Reskill program, so that what you learn this week complements your pre incubation skills assessment. This preparation will save you time in Sprint 1 & 2!

Segmentation and Targeting

Customer centricity
course 49 min

segmentation essentials
course 46 min

segmentation best pract
course 48 min

data & targeting
course 46 min

Agile methods of working

Agile Essentials
Course 48 min
Beginner

Agile Best Practice
Course 47 min
Beginner

Agile Strategy
Course 49 min
Intermediate

Scrum Master
Learning Path 3 hrs
Beginner

naive bayes deep dive

slide deck + jupyter notebook
self paced review and task 2 hrs
Intermediate

Python refresher -optional!

python challenge gauntlet
1hr40 min Beginner

visualisation matplotlib
1hr21 min Intermediate

binary classification
1hr Intermediate

EXCITED?

LETS GET CRACKING THEN!