QA

LBG DA INCUBATION LAB

YOUR WEEKLY SCHEDULE

PRE INCUBATION START
SPRINT PREPARATION

+ Skills portfolio (self assessment)
+ Learning path on QA's Cloud Academy platform
+ Additional reading materials

- Working methods : Agile + SCRUM
- preparation for sprint 1
  - Segmentation & targeting
  - Consumer centricity
  - Python data visualisation
  - Binary classification models refresher
  - python lab challenges
- preparation for sprint 2
  - Naive bayes slide deck
  - Amazon food reviews example jupyter notebook

TITLE	JOB SKILL	DURATION
Agile Essentials	–	48m
Agile Best Practice	–	47m
Agile Strategy	–	49m
Scrum Master	–	3h 4m
Segmentation Essentials	–	46m
Segmentation Best Practice	–	48m
Data & Targeting Essentials	–	46m
Consumer Centricity Mindset	–	49m
Python Beginner's Challenge Gauntlet	–	1h 40m
Data Visualization with Python using Matplotlib	–	1h 21m
Evaluating Binary Classification Models	–	1h

ON GITHUB

- 📁 Amazon Food Reviews Sample
- 📄 Amazon Food Review Analytics.ipynb
- 📄 naivebayes_sprintprep.pdf

SPRINT WEEKLY SCHEDULE DETAIL

<Scenario outline> you will face a new (related) bank scenario each sprint

<DATE> Each weekday is dedicated to progress on your SPRINT goals
You will have a standup (check-in) at the start of sprint days to share:
- What you completed yesterday
- What you plan to do today
- What blocks, if any, you have

+ Notes
At end of each 2 week sprint block there is a structured group session
Thursdays are typically LBG internal days (except easter week)
You have a full week break between sprint 2 and sprint 3 [use this time to identify skills you need to develop, reflect on and update your portfolio]

SPRINT 1
CUSTOMER REQUIREMENTS & SEGMENTATION

Scenario: Requirements received from Marketing Team to visualise direct marketing campaign results and apply customer segmentation

- Tableau Segmentation Dashboard
- User Guide for dashboard
- Customer personas

Development of Scenario: Flag each customer as receptive or not

- Python - Classification model
- Embed python and results into PowerBI report
- Summary report

SPRINT 1 WEEK 1 SCHEDULE
CUSTOMER REQUIREMENTS & SEGMENTATION

Scenario: Requirements received from Marketing Team to visualise direct marketing campaign results and apply customer segmentation
- Tableau Segmentation Dashboard
- User Guide for dashboard
- Customer personas

Monday 4/3 SPRINT
Tuesday 5/3 SPRINT
Wednesday 6/3 SPRINT
Thursday 7/3 LBG INTERNAL
On Thursdays, Lloyds will lead activities to support your development; will include opportunities to shadow colleagues, attend 1on1s with Berenika to discuss and update your skills portfolio
Friday 8/3 SPRINT + Peer Review session
In this session you will meet with a classmate to share your dashboards, giving constructive feedback so that each of you can iterate and improve

SPRINT 1 WEEK 2 SCHEDULE
CUSTOMER REQUIREMENTS & SEGMENTATION

Development of Scenario: Flag each customer as receptive or not

- Python - Classification model
- Embed python and results into PowerBI report
- Summary report

Monday 11/3 SPRINT
Tuesday 12/3 SPRINT
Wednesday 13/3 SPRINT
Thursday 14/3 LBG INTERNAL
Friday 15/3 SPRINT + Sprint wrap meeting
This meeting is about the process, rather than the product. Your instructor will want to know what the technical challenges were and how you handled them

SPRINT 2
DATA INTEGRATION AND SENTIMENT ANALYSIS

Scenario: Operations director requires CRM tables to be integrated into relational database

- Database modelling in SQL
- Validation of data & technical report

Development of Scenario: Branch Analysis strategic input

- Branch Analytical Report and Video

Development of Scenario : NLP Sentiment and Topic Analysis in CRM data

- Jupyter notebook with NLP libraries

SPRINT 2 WEEK 1 SCHEDULE
DATA INTEGRATION AND SENTIMENT ANALYSIS

Scenario: Operations director requires CRM tables to be integrated into relational database
- Database modelling in SQL
- Validation of data & technical report

Development of Scenario: Branch Analysis strategic input
- Branch Analytical Report and Video

Monday 18/3 SPRINT
Tuesday 19/3 SPRINT
Wednesday 20/3 SPRINT
Thursday 21/3 LBG INTERNAL
Friday 22/3 SPRINT

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SPRINT 2 WEEK 2 SCHEDULE
DATA INTEGRATION AND SENTIMENT ANALYSIS

Development of Scenario : NLP Sentiment and Topic Analysis in CRM data

- Data preparation of customer reviews data
- Jupyter notebook showing use of NLP libraries
- NLP analysis summary report

Monday 25/3 SPRINT
Tuesday 26/3 SPRINT
Wednesday 27/3 SPRINT
Thursday 28/3 SPRINT + Round Table
The round table is a chance for you to tie up the sprint by reflecting on what you collectively aimed to achieve, how relevant are your findings to the business scenario and what would be the next steps. At a round table the cohort will learn from eachother by swapping techniques and workarounds, you will also talk about time constraints and the challenge of working with incomplete data on meeting business needs
--FOLLOWED BY EASTER BREAK --

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SPRINT 3
FRAUD PREVENTION AND FORECASTING WITH GCP AI

Scenario: Markets and Finance team request two projects on the Transactions table.
Look at fraudulent transaction flagging first.

- Competition / Hackathon with Fraud Prediction model in Python, Pandas, SciKitLearn
- Trainer has validation data for model scoring

Development of Scenario: develop capacity for forecasting future transactions

- Time Series Analysis and Forecasting with Python, Prophet, StatsModels
- Deploy to GCP Cloud Storage/ Cloud SQL with AI services

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SPRINT 3 WEEK 1 SCHEDULE
FRAUD PREVENTION AND FORECASTING WITH GCP AI

Scenario: Markets and Finance team request two projects on the Bank Transactions table
Look at fraudulent transaction flagging first.
- Hackathon with Fraud Prediction model in Python, Pandas, SciKitLearn
- Trainer has validation data for model scoring

Development of Scenario: develop capacity for forecasting future transactions
- Time Series Analysis and Forecasting with Python, Prophet, StatsModels
- Deploy to GCP Cloud Storage/ Cloud SQL with AI services

Monday 8/4 SPRINT
Tuesday 9/4 SPRINT
Wednesday 10/4 MOP UP DAY
Use this time to iterate on any previous deliverable
Thursday 11/4 LBG INTERNAL
Friday 12/4 SPRINT

SPRINT 3 WEEK 2 SCHEDULE
FRAUD PREVENTION AND FORECASTING WITH GCP AI

Scenario: Markets and Finance team request two projects on the Bank Transactions table
Look at fraudulent transaction flagging first.
- Competition / Hackathon with Fraud Prediction model in Python, Pandas, SciKitLearn
- Trainer has validation data for model scoring

Development of Scenario: develop capacity for forecasting future transactions
- Time Series Analysis and Forecasting with Python, Prophet, StatsModels
- Deploy to GCP Cloud Storage/ Cloud SQL with AI services

Monday 15/4 SPRINT
Tuesday 16/4 SPRINT
Wednesday 17/4 SPRINT
Thursday 18/4 LBG INTERNAL
Friday 19/4 SPRINT + Sprint Post Mortem
This meeting seeks to consider what you would do differently if you started this sprint again, armed with what you now know about the technical challenges

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SPRINT 4:
BIG QUERY AND GROWTH OPPORTUNITIES

Scenario: Product manager wants to see insights from loan data of bank clients but data is personally identifiable

- SQL
- GCP Big Query
- Data Governance, Privacy and Documentation

Scenario Development: Discover growth opportunities

- Freedom to choose approach and tech stack
- Technical documentation presentation in small groups

+**Hiring manager - analyst scenario exercise**

SPRINT 4 WEEK 1 SCHEDULE
BIG QUERY AND GROWTH OPPORTUNITIES

Scenario: Product manager wants to see insights from loan data of bank clients but the data is siloed and personally identifiable

- SQL database contains luxury loan data
- You will surface the data via GCP Big Query
- Consideration for data governance, data protection, privacy

Monday 22/4 SPRINT
Tuesday 23/4 SPRINT
Wednesday 24/4 SPRINT
Thursday 25/4 LBG INTERNAL
Friday 26/4 SPRINT

SPRINT 4 WEEK 2 SCHEDULE
BIG QUERY AND GROWTH OPPORTUNITIES

Scenario: Product manager wants to discover growth opportunities for existing clients or products but the data is siloed
- Freedom to choose your approach and tech stack
- Technical documentation + presentation in small groups

Monday 29/4 SPRINT
Tuesday 30/4 SPRINT
Wednesday 1/5 SPRINT
Thursday 2/5 LBG INTERNAL
Friday 3/5 SPRINT + hiring manager - analyst scenario exercise
this exercise will see you role-play the analyst and hirer to talk through the projects you have worked on and answer/pose competency based questions to see how well you can demonstrate your technical skills

--End of program + finalise your portfolio--

ALL SPRINTS
PUSHING 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

GOOD LUCK!