FNB DataQuest Toolkit

Navigate your future

Inathi Bulwana

Present: Student
Future: Data Scientist

If you're ready for the future, we're ready for you.

INTRODUCTION

Welcome to the FNB DataQuest!

We're excited to host you in this 2-day event which will allow you to learn, network and most importantly put your mind to the test against the best and the brightest in the data science community.

Better data means better analytics and better ways to help our customers. With better insights come better products and services, which makes data and analytics critical to what we do as a business and why we need the sharpest minds to do it. Through quantitative, analytical, mathematical, and statistical methods, we are better able to make sense of data, understand business trends, make smart decisions, and solve financial and risk problems, credit modelling and pricing.

As part of the FNB DataQuest, we've given you real challenges that our own analytics teams have had to solve, so that you can get an idea of life at FNB as an analyst. They're not easy, but to help guide you through the process we have also provided some very useful masterclasses and the opportunity to ask our subject matter experts questions. Throughout both days, you will also have a chance to connect with our experts in 'coaching' rooms specifically assigned to each challenge.

At FNB, we're always looking for individuals who've got the energy, enthusiasm, and experience to make a difference. We're excited to spend time with you over these two days and give you the opportunity to show us what you've got!

Please read through the rest of the toolkit as there are a few things you need to know before you get ready to solve, learn and win.

The FNB Young Talent Team

AGENDA

13 May

09:00 Welcome

09:05 Keynote address:
Dr Mark Nasila
CHIEF DATA & ANALYTICS OFFICER,
CHIEF RISK OFFICE

10:30 Challenge Introduction,
Toolkit review and challenge Q&A

11:00 Some fun with the Dream Team

12:30 Break

14:00 Working/ Coaching Room

15:00 Closing

14 May

09:00 About the FNB Graduate Programme

10:00 Masterclass:
Business Context in Data Science Problems
DR YUDHVIR SEETHARAM

11:00 Some fun! Pop Quiz.

11:30 Working/ Coaching Rooms

12:30 Close off

Recommender Systems

Context

We aim to provide personalised offers across all interfaces to maximise the lifetime value of the relationship with all our customers. Diverse, relevant and novel offers are part of a bigger customer journey that are personalised through context and executed across multiple interfaces. Recommender System models are designed to solve this challenge well. Examples of other companies who do this well are the personalised recommendations from Amazon, Netflix and Spotify.

Problem Statement

The delivery of personalised offers should be prioritised and ranked based on customer needs derived through contextual data points. To deliver the best possible customer experience, you need to develop a recommender system model, that can recommend the most relevant offers to each customer.

Question

1. Train a recommender system machine learning model of your choice to solve this challenge, using the dataset provided.
2. Show a variety of accuracy and beyond-accuracy measures to motivate why your model is expected to work well.
3. Describe any additional considerations that you would expect if this system is used in a live/production environment.

Click here for data files or copy and paste the link in your browser: *https://tinyurl.com/dqChallenge1*

COMPETITION

Rules

1. Participants can work individually or in teams, one person can choose to represent the team in the submission presentation.

2. Submission must be in PowerPoint format, with attached script and an embedded video presentation.

3. Any person who is at least 18 years old with a valid student number and meets the following criteria may take part:

   - must be a South African citizen;
   - must be a full-time student currently in their final year of studying towards a degree or a postgraduate degree;
   - must at the time of the competition be in their second, final or postgraduate degree to study at any South African university.

How to submit

Entries need to be submitted before 30 May 2025 at 23:59. Submissions will need to consist of an Explanation Video/PowerPoint and support files. We suggest uploading these to your Google Drive, Microsoft OneDrive or Dropbox and sharing the link on the submission form below:

Click here to submit or copy and paste the link in your browser: *https://tinyurl.com/dataquestSubmit*.

Please ensure you have reviewed the competition rules above and accept the *full terms and conditions*, **click here** or copy and paste the link in your browser the link: *https://tinyurl.com/datatermsandc*.

COMPETITION
Judging Criteria

Judging Criteria	Rating scale	Ratings	Weighting %
Abstracting the problem	• How well was the problem 'broken down' into workable components? • Did they ask the right questions? • Did they understand the problem?	1 3 Articulation of the problem in context of FNB, but no nuance for the customer journey/ R&C context. 5 Clear articulation of the problem in the context of FNB and the particular business unit/customer journey.	**20%**
Technical aptitude/ use of data	• How well did you use the data? • Were new date sets created from the existing one? • What features were created and how relevant are they to solve the problem? • Did you select relevant data elements? • Was the data interpreted correctly?	1 3 5 Results are analysed correctly, use of techniques (not necessarily advanced ones only) are appropriate and JUSTIFIED, results make both statistical and economic sense.	**30%**

COMPETITION

Judging Criteria

Judging Criteria	Rating scale	Ratings	Weighting %
Business context (acumen)	• How well are you able to explain the business impact of solving the challenge? • How actionable are the insights?	1 3 5 Results can be actioned in the short term by the appropriate business unit AND the team has quantified POTENTIAL value of the business opportunity.	**30%**
Presentation	• Look and feel of presentation • How well did you keep the judges' attention.	1 3 5 Creative use of presentation methods (such as timing/animations between slides, content % on slides, pre-recording, other visualisation methods) AND clear, simple to follow voice overs.	**20%**

Prizes

1st Prize

The first prize winner will receive a **R25 000 cash prize**, as well as a **guaranteed interview** for the FNB Future League Graduate Programme

2nd Prize

Second prize winner will receive **R10 000.**

3rd Prize

The third prize winner will receive **R5 000**.

Resources

The DataQuest event will be hosted on the **Microsoft Teams** platform.

DATA FILES REQUIRED FOR THE CHALLENGE:

Challenge: Recommender Systems
Click here for data files or copy and paste the link in your browser: *https://tinyurl.com/dqChallenge1*

PowerPoint Presentations
Click here or copy and paste the link in your browser: *https://tinyurl.com/dataquestpptc1*

Recording of Day 1
Click here or copy and paste the link in your browser: https://tinyurl.com/DataQuestDay1

Recording of Day 2
Click here or copy and paste the link in your browser: https://tinyurl.com/DataQuestDay2

Contacts

If you have any questions, email *grad@fnb.co.za*.