**PRACTICAL ASSESSMENT TEST.**

**Instructions**

1. This assessment should only take **2 HOURS** to be completed.
2. This assessment contains only one practical technical test.
3. You are supposed to write your own code to solve the below problem in any programming language of your preference.

***Preferably* JAVA and any JAVA Framework will be highly encouraged**

**NOTE**: ***DO NOT copy code online as this will be detected***

1. You are encouraged to use any open-source tools, languages, and databases for this test.
2. You are encouraged to write good comments against your code functions
3. Unit Tests are highly encouraged
4. Also share details on how to **configure**, **run** and **test** your program on the Read.me file
5. Create a parent folder with your F\_NAME and L\_NAME e.g., **JOE\_DOE.zip** and add your code or program and zip it and share to the emails below

[ajbasil@kcbgroup.com](mailto:ajbasil@kcbgroup.com) & [basiljereh@gmail.com](mailto:basiljereh@gmail.com)

1. Attempt any ONE of the questions

**QUESTION 1**

Design and write a RESTFUL microservice program that will perform database operation to create CUSTOMER, create customer ACCOUNT.

A customer can have multiple bank accounts and multiple Debit/Credit CARD numbers. Show the relationship between customer and account & card entiites in your database.

The microservice should support account top-ups and account withdrawal functions.

**QUESTION 2**

Design and write a RESTFUL microservice program that integrates to Safaricom Daraja Apis and performs STK push. The API should be able to handle data persistence to a database of your choice.

The API should be secure.