Test Automation

Case Studies

**Date**:

**Candidate Name**:

**Department**: CRO-IT

# Case 1

# Comparison and Searches

The case below shows a table with some random products from a grocery shop:

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Description | Price | Batch Expiry Date |
| Jungle Oats | Oats 2kg | 44.99 | 10/11/2022 |
| Cape Point Fish Fingers | Frozen, ready to bake goods | 64.99 | 05/12/2022 |
| Bokomo Corn Flakes | Corn flakes 1kg | 37.99 | 06/08/2022 |
| Bob Martin | Dog food 6kg | 169.99 | 25/02/2023 |
| Tastic Rice | Parboiled rice 5kg | 50 | 17/07/2023 |
| Yum Yum | Smooth Peanut Butter 1kg | 44.99 | 05/09/2022 |

Note: the above information has been obtained from a word document and are all in String Format

# Scenario 1.1

Based on the above table, write a function that will printout the name of the item with the cheapest price.

# Scenario 1.2

Using the above table, write a function that will go through the batch expiry dates and create an Alert (i) that will display the name of the expired items and its expiry date. (ii) if there are any items that will expire in less than 1 month, return those item names so that the shop can put them on sale.

# Case 2

# String Manipulation

# Information provided by Application

<from\_account>

<institution\_name>FNB,South Africa</institution\_name>

<swift>FIRNZAFF</swift>

<branch>22548</branch>

<account>4483812254886559</account>

<currency\_code>ZAR</currency\_code>

<account\_name>FIRST NATIONAL CHEQUE PREMIER ACCOUNT</account\_name>

<client\_number>28248582</client\_number>

<personal\_account\_type>20</personal\_account\_type>

<signatory>

<t\_person>

<gender>M</gender>

<title>Mr</title>

<firstnumber>890128522079</id\_number>

<nationality1>ZA</nationality1>

<residence>ZA</residence>

</signatory>

</from\_account>

# The above segment of information has been obtained from business. What you are required to do it as follows:

# Scenario 2.1

1. Write a function that will crop the required information be displayed as follows:

**Full Name: Mr MOHAMMED NABEEL CAMAROODIEN**

**Date of Birth: 28 January 1989**

1. Write a function that will verify that the ID number has 13 digits and if it’s not the case display an error Message.

# Scenario 2.2

Write a function that will crop the bank name from institution\_name, account number from account and account type from within the account\_name (PREMIER value) and display it as follows:

**FNB4483812254886559\_PREMIER**

# Case 3

## Performance Testing

3.1 Write a test function that will perform the below scenarios:

1. How can we verify that response time is not more than 4 secs when 1000 users access the website simultaneously?
2. Check the maximum number of users that the application can handle before it crashes.
3. Verify the response time of the application under low, normal, moderate, and heavy load conditions.

3.2 What type of performance testing is required to perform the above-mentioned scenarios?