Just IT

B2W group

Apprenticeships | Training | Recruitment

Data Technician

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Day 2: Task 1

It is a common software development interview question to create the below with a certain programming language. Create the below using Python syntax, test it and past the completed syntax and output below.

FizzBuzz:

Go through the integers from 1 to 100.
If a number is divisible by 3, print "fizz."
If a number is divisible by 5, print "buzz."
If a number is both divisible by 3 and by 5, print "fizzbuzz."
Otherwise, print just the number.

Paste your completed work to the right	

```
for i in range(0, 101):
  if i % 3 == 0 and i % 5 == 0:
    print("fizzbuzz")
  elif i % 3 == 0:
    print("fizz")
  elif i % 5 == 0:
    print("buzz")
  else:
    print(i)
```

Day 3: Task 1

Using the 'student.csv' which can be downloaded here, complete the below exercises and paste your input and output.

Exercise 1: Loading and Exploring the Data

1. Question: "Write the code to read a CSV file into a Pandas DataFrame."
2. Question: "Write the code to display the first 5 rows of the DataFrame."
3. Question: "Write the code to get the information about the DataFrame."
4. Question: "Write the code to get summary statistics for the DataFrame."

```
1)
from google.colab import files
uploaded = files.upload()
-
df = pd.read_excel('student.xlsx')

2)
df.head()

3)
df.info()

4)
df.describe()
```

Exercise 2: Indexing and Slicing

1. Question: "Write the code to select the 'name' column."
2. Question: "Write the code to select the 'name' and 'mark' columns."
3. Question: "Write the code to select the first 3 rows."
4. Question: "Write the code to select all rows where the 'class' is 'Four'."

```
1)
df["name"]

2)
df[["name", "gender"]]

3)
df.iloc[0:3]

4)
df.loc[(df[“class"]=="Four")]
```

Exercise 3: Data Manipulation

1. Question: "Write the code to add a new column 'passed' that indicates whether the student passed (mark >= 60)."
2. Question: "Write the code to rename the 'mark' column to 'score'."
3. Question: "Write the code to drop the 'passed' column."

```
1)
df['passed'] = df['mark'] >= 60
df

2)
df.rename(columns={'mark': 'score'}, inplace=True)
df

3)
df.drop('passed', axis=1, inplace=True)
df
```

Day 4: Task 1

Using the 'GDP (nominal) per Capita.csv' which can be downloaded here, complete the below exercises and paste your input and output. Work individually, but we will work and support each other in the room.

- Read and save the 'GDP (nominal) per Capita' data to a data frame called "df" in Jupyter notebook
- Print the first 10 rows
- Print the last 5 rows
- Print 'Country/Territory' and 'UN_Region' columns

```
1)
import pandas as pd
from google.colab import files
uploaded = files.upload()
df = pd.read_excel('GDP (nominal) per Capita.xlsx')
df

2)
df.head(10)

3)
df.tail(5)

4)
df[['Country/Territory','UN_Region']]
```

Course Notes

It is recommended to take notes from the course, use the space below to do so, or use the revision guide shared with the class:

We have included a range of additional links to further resources and information that you may find useful, these can be found within your revision guide.

END OF WORKBOOK

Please check through your work thoroughly before submitting and update the table of contents if required.

Please send your completed work booklet to your trainer.