

Name: Tanmay Soni
Roll No: CH.EN.U4CYS20074

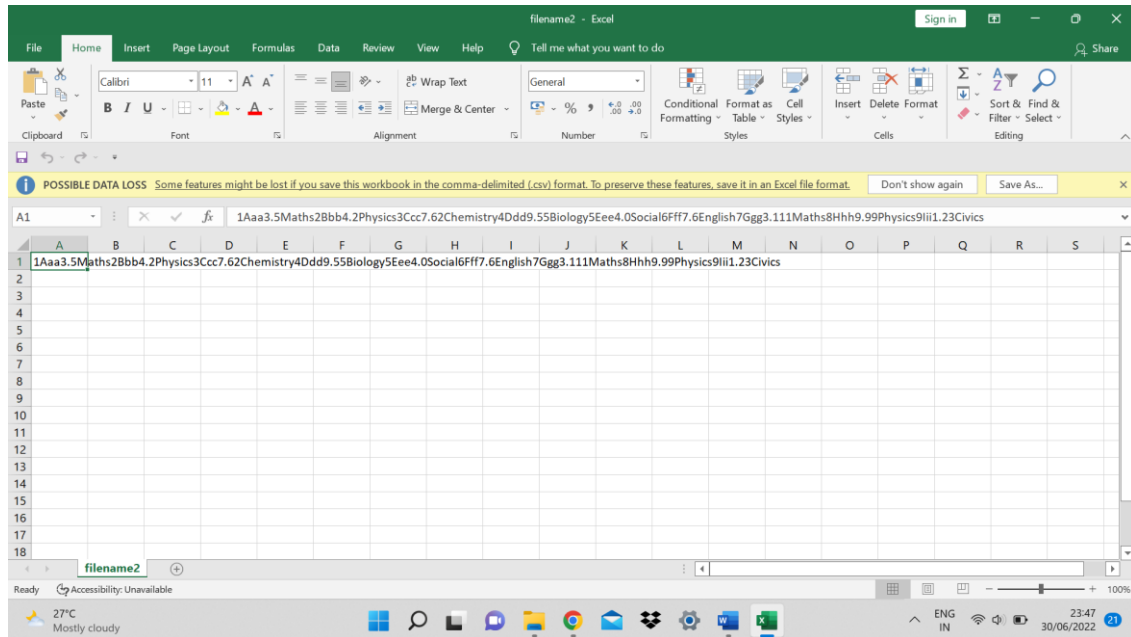
Task 6

Question:1

Contents of 'onlinefile.txt'

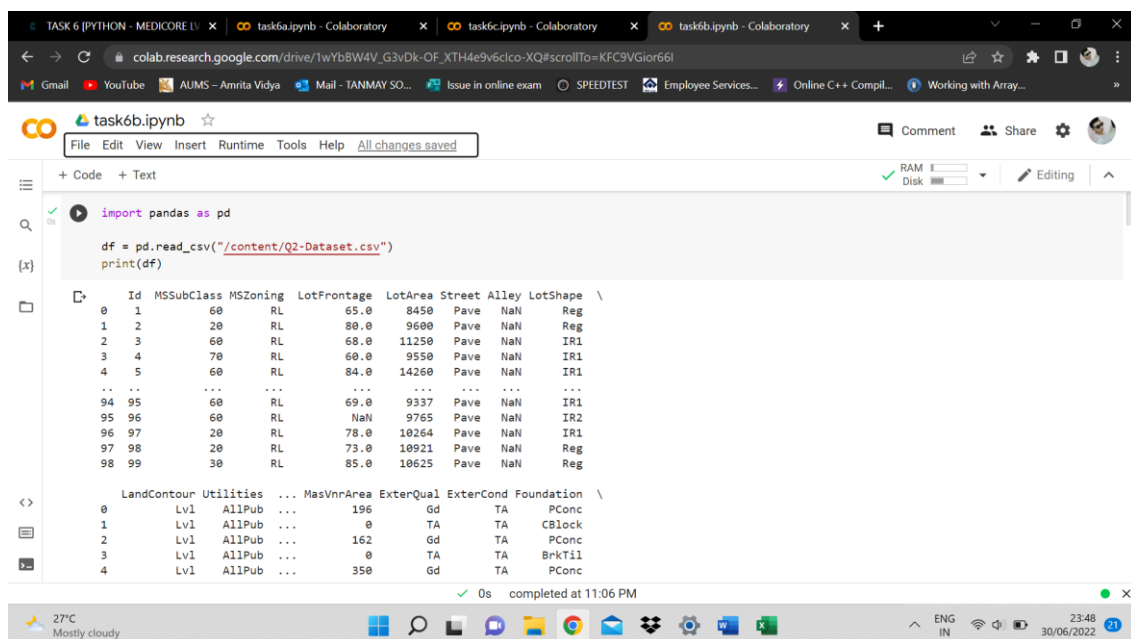
1Aaa3.5Maths2Bbb4.2Physics3Ccc7.62Chemistry4Ddd9.55Biology5Eee4.0Social6Fff7.6English7Ggg3
.111Maths8Hhh9.99Physics9Iii1.23Civics

Output:



Question2:

Output:



Roll No: CH.EN.U4CYS20074

Task 6

task6b.ipynb

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

RAM Disk

Editing

1	Lv1	AllPub	...	0	TA	TA	CBlock
2	Lv1	AllPub	...	162	Gd	TA	PConc
3	Lv1	AllPub	...	0	TA	TA	BrkTtl
4	Lv1	AllPub	...	350	Gd	TA	PConc
...
94	Lv1	AllPub	...	0	TA	Gd	PConc
95	Lv1	AllPub	...	68	Ex	Gd	PConc
96	Lv1	AllPub	...	183	Gd	TA	PConc
97	HLS	AllPub	...	48	TA	TA	CBlock
98	Lv1	AllPub	...	0	TA	TA	BrkTtl

	BsmtQual	BsmtCond	BsmtExposure	BsmtFinType1	BsmtFinSF1	BsmtFinType2
0	Gd	TA	No	GLQ	706	Unf
1	Gd	TA	Gd	ALQ	978	Unf
2	Gd	TA	Mn	GLQ	486	Unf
3	TA	Gd	No	ALQ	216	Unf
4	Gd	TA	Av	GLQ	655	Unf
...
94	Gd	TA	No	GLQ	648	Unf
95	Gd	Gd	No	ALQ	310	Unf
96	Gd	TA	Av	ALQ	1162	Unf
97	TA	TA	No	Rec	520	Unf
98	TA	TA	No	ALQ	108	Unf

[99 rows x 36 columns]

0s completed at 11:06 PM

```
df['LotFrontage'] = df['LotFrontage'].fillna(0)
print(df)
```

	Id	MSSubClass	MSZoning	LotFrontage	LotArea	Street	Alley	LotShape
0	1	60	RL	65.0	8450	Pave	NaN	Reg
1	2	20	RL	80.0	9600	Pave	NaN	Reg
2	3	60	RL	68.0	11250	Pave	NaN	IR1
3	4	70	RL	60.0	9550	Pave	NaN	IR1
4	5	60	RL	84.0	14260	Pave	NaN	IR1

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Task 6

colab.research.google.com/drive/1wYbBW4V_G3vDk-OF_XTH4e9v6clco-XQ#scrollTo=KFC9VGior66l

task6b.ipynb

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```
1      Lvl1  AllPub  ...      0      TA      TA      CBlock
2      Lvl1  AllPub  ...     162     Gd      TA      PConc
3      Lvl1  AllPub  ...      0      TA      TA      BrkTil
4      Lvl1  AllPub  ...     350     Gd      TA      PConc
...
94     Lvl1  AllPub  ...      0      TA     Gd      PConc
95     Lvl1  AllPub  ...     68     Ex     Gd      PConc
96     Lvl1  AllPub  ...    183     Gd     TA      PConc
97     Hls   AllPub  ...     48     TA      TA      CBlock
98     Lvl1  AllPub  ...      0      TA      TA      BrkTil
```

```
      BsmQual BsmCond BsmExposure BsmFinType1 BsmFinSF1 BsmFinType2
0      Gd      TA      No      GLQ      706      Unf
1      Gd      TA      Gd      ALQ      978      Unf
2      Gd      TA      Mn      GLQ      486      Unf
3      TA      Gd      No      ALQ      216      Unf
4      Gd      TA      Av      GLQ      655      Unf
...
94     Gd      TA      No      GLQ      648      Unf
95     Gd      Gd      No      ALQ      310      Unf
96     Gd      TA      Av      ALQ     1162      Unf
97     TA      TA      No      Rec      520      Unf
98     TA      TA      No      ALQ      108      Unf
```

[99 rows x 36 columns]

0s completed at 11:06 PM

27°C Mostly cloudy

ENG IN 23:49 30/06/2022

colab.research.google.com/drive/1wYbBW4V_G3vDk-OF_XTH4e9v6clco-XQ#scrollTo=KFC9VGior66l

task6b.ipynb

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```
df['Alley'] = df['Alley'].fillna("No")
print(df)
```

```
   Id  MSSubClass MSZoning  LotFrontage  LotArea  Street  Alley  LotShape  \
0    1         60      RL         65.0    8450    Pave    No      Reg
1    2         20      RL         80.0    9600    Pave    No      Reg
2    3         60      RL         68.0   11250    Pave    No      IR1
3    4         70      RL         60.0    9550    Pave    No      IR1
4    5         60      RL         84.0   14260    Pave    No      IR1
...
94   95         60      RL         69.0    9337    Pave    No      IR1
95   96         60      RL          0.0    9765    Pave    No      IR2
96   97         20      RL         78.0   10264    Pave    No      IR1
97   98         20      RL         73.0   10921    Pave    No      Reg
98   99         30      RL         85.0   10625    Pave    No      Reg
```

```
   LandContour  Utilities  ...  MasVnrArea  ExterQual  ExterCond  Foundation  \
0      Lvl1  AllPub  ...      196      Gd      TA      PConc
1      Lvl1  AllPub  ...          0      TA      TA      CBlock
2      Lvl1  AllPub  ...     162     Gd      TA      PConc
3      Lvl1  AllPub  ...          0      TA      TA      BrkTil
4      Lvl1  AllPub  ...     350     Gd      TA      PConc
...
94     Lvl1  AllPub  ...          0      TA     Gd      PConc
```

0s completed at 11:06 PM

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Task 6

colab.research.google.com/drive/1wYbBW4V_G3vDk-OF_XTH4e9v6clco-XQ#scrollTo=KFC9VGior66l

task6b.ipynb

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

```
1      Lvl1  AllPub  ...      0      TA      TA      CBlock
2      Lvl1  AllPub  ...     162     Gd      TA      PConc
3      Lvl1  AllPub  ...      0      TA      TA      BrkTil
4      Lvl1  AllPub  ...     350     Gd      TA      PConc
...
94     Lvl1  AllPub  ...      0      Gd      Gd      PConc
95     Lvl1  AllPub  ...     68     Ex      Gd      PConc
96     Lvl1  AllPub  ...     183     Gd      TA      PConc
97     HLS   AllPub  ...     48     TA      TA      CBlock
98     Lvl1  AllPub  ...      0      TA      TA      BrkTil
```

```
      BsmQual BsmCond BsmExposure BsmFinType1 BsmFinSF1 BsmFinType2
0      Gd      TA      No      GLQ      706      Unf
1      Gd      TA      Gd      ALQ      978      Unf
2      Gd      TA      Mn      GLQ      486      Unf
3      TA      Gd      No      ALQ      216      Unf
4      Gd      TA      Av      GLQ      655      Unf
...
94     Gd      TA      No      GLQ      648      Unf
95     Gd      Gd      No      ALQ      310      Unf
96     Gd      TA      Av      ALQ      1162     Unf
97     TA      TA      No      Rec      520      Unf
98     TA      TA      No      ALQ      108      Unf
```

[99 rows x 36 columns]

0s completed at 11:06 PM

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colab.research.google.com/drive/1wYbBW4V_G3vDk-OF_XTH4e9v6clco-XQ#scrollTo=KFC9VGior66l

task6b.ipynb

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

```
df.replace(to_replace="Names",value="Names")
print(df)
```

```
   Id  MSSubClass MSZoning  LotFrontage  LotArea  Street  Alley  LotShape  \
0    1           60      RL           65.0    8450    Pave   No      Reg
1    2           20      RL           80.0    9600    Pave   No      Reg
2    3           60      RL           68.0   11250    Pave   No      IR1
3    4           70      RL           60.0    9550    Pave   No      IR1
4    5           60      RL           84.0   14260    Pave   No      IR1
...
94  95           60      RL           69.0    9337    Pave   No      IR1
95  96           60      RL           0.0    9765    Pave   No      IR2
96  97           20      RL           78.0   10264    Pave   No      IR1
97  98           20      RL           73.0   10921    Pave   No      Reg
98  99           30      RL           85.0   10625    Pave   No      Reg
```

```
   LandContour  Utilities  ...  MasVnrArea  ExterQual  ExterCond  Foundation  \
0      Lvl1      AllPub  ...      196      Gd      TA      PConc
1      Lvl1      AllPub  ...      0      TA      TA      CBlock
2      Lvl1      AllPub  ...     162     Gd      TA      PConc
3      Lvl1      AllPub  ...      0      TA      TA      BrkTil
4      Lvl1      AllPub  ...     350     Gd      TA      PConc
...
```

0s completed at 11:06 PM

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Task 6

colab.research.google.com/drive/1wYbBW4V_G3vDk-OF_XTH4e9v6clco-XQ#scrollTo=KFC9VGior66l

task6b.ipynb

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

```
2      Lv1  AllPub  ...      162      Gd      TA      PConc
3      Lv1  AllPub  ...           0      TA      TA      BrkTil
4      Lv1  AllPub  ...      350      Gd      TA      PConc
...
94     Lv1  AllPub  ...           0      TA      Gd      PConc
95     Lv1  AllPub  ...        68      Ex      Gd      PConc
96     Lv1  AllPub  ...      183      Gd      TA      PConc
97     HLS  AllPub  ...        48      TA      TA      CBlock
98     Lv1  AllPub  ...           0      TA      TA      BrkTil
```

```
      BsmQual BsmCond BsmExposure BsmFinType1 BsmFinSF1 BsmFinType2
0      Gd      TA      No           GLQ          706      Unf
1      Gd      TA      Gd           ALQ          978      Unf
2      Gd      TA      Mn           GLQ          486      Unf
3      TA      Gd      No           ALQ          216      Unf
4      Gd      TA      Av           GLQ          655      Unf
...
94     Gd      TA      No           GLQ          648      Unf
95     Gd      Gd      No           ALQ          310      Unf
96     Gd      TA      Av           ALQ         1162      Unf
97     TA      TA      No           Rec          520      Unf
98     TA      TA      No           ALQ          108      Unf
```

[99 rows x 36 columns]

0s completed at 11:06 PM

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colab.research.google.com/drive/1wYbBW4V_G3vDk-OF_XTH4e9v6clco-XQ#scrollTo=KFC9VGior66l

task6b.ipynb

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

```
[21] df[['BsmQual','BsmCond']] = df[['BsmQual','BsmCond']].fillna("No")
      print(df[['BsmQual','BsmCond']])
```

```
      BsmQual BsmCond
0      Gd      TA
1      Gd      TA
2      Gd      TA
3      TA      Gd
4      Gd      TA
...
94     Gd      TA
95     Gd      Gd
96     Gd      TA
97     TA      TA
98     TA      TA
```

[99 rows x 2 columns]

```
df['BsmExposure'] = df['BsmExposure'].fillna("NoExposure")
print(df[['BsmExposure']])
```

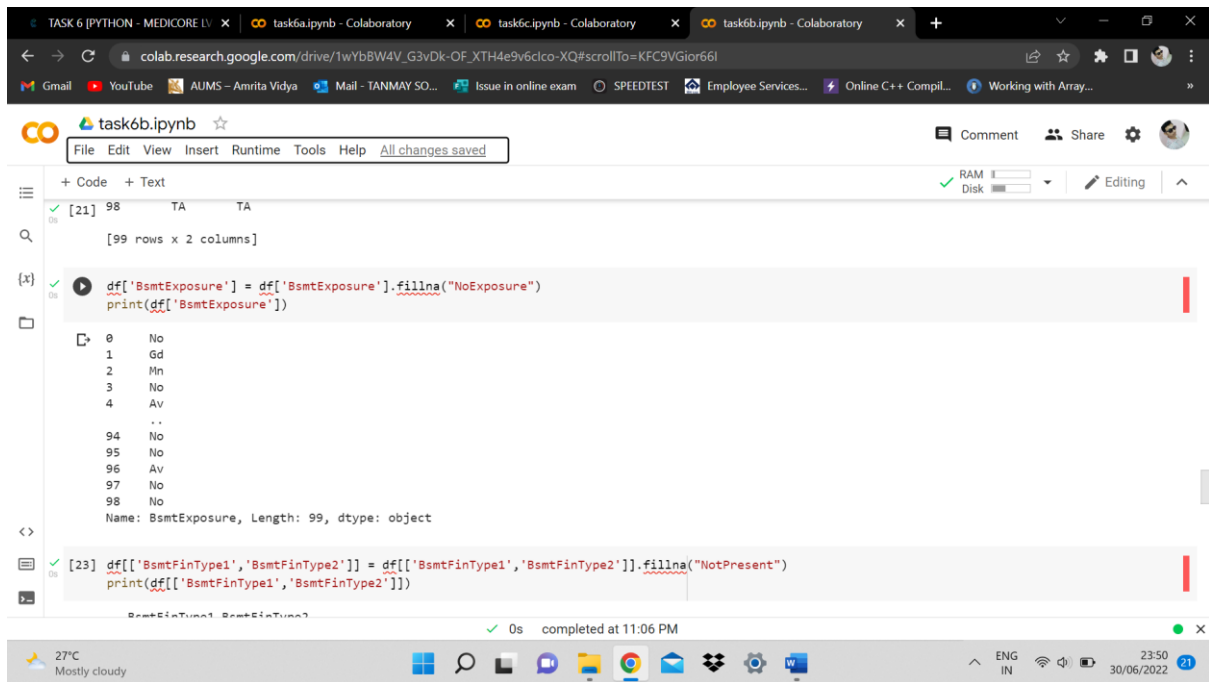
```
0      No
1      Gd
...
```

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Task 6



task6b.ipynb

```
File Edit View Insert Runtime Tools Help All changes saved
```

+ Code + Text

[21] 98 TA TA

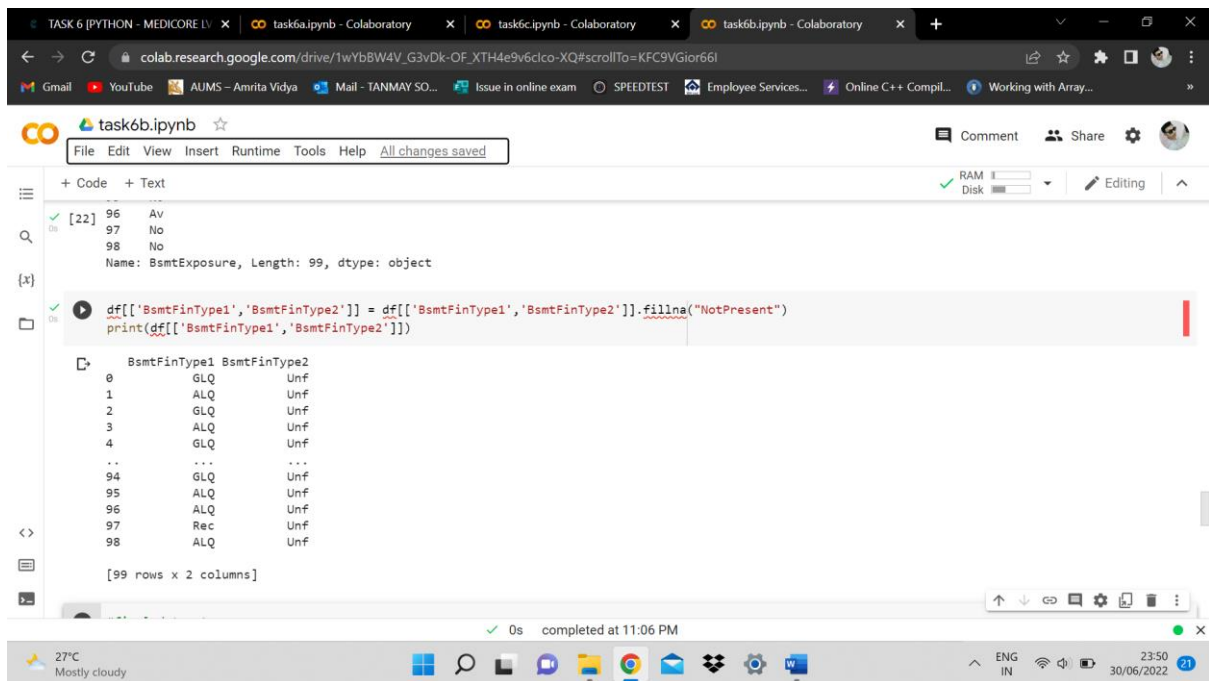
[99 rows x 2 columns]

```
df['BsmtExposure'] = df['BsmtExposure'].fillna("NoExposure")
print(df[['BsmtExposure']])
```

```
0      No
1      Gd
2      Mn
3      No
4      Av
..
94     No
95     No
96     Av
97     No
98     No
Name: BsmtExposure, Length: 99, dtype: object
```

```
[23] df[['BsmtFinType1', 'BsmtFinType2']] = df[['BsmtFinType1', 'BsmtFinType2']].fillna("NotPresent")
print(df[['BsmtFinType1', 'BsmtFinType2']])
```

0s completed at 11:06 PM



task6b.ipynb

```
File Edit View Insert Runtime Tools Help All changes saved
```

+ Code + Text

[22] 96 Av

97 No

98 No

Name: BsmtExposure, Length: 99, dtype: object

```
df[['BsmtFinType1', 'BsmtFinType2']] = df[['BsmtFinType1', 'BsmtFinType2']].fillna("NotPresent")
print(df[['BsmtFinType1', 'BsmtFinType2']])
```

```
0      GLQ      Unf
1      ALQ      Unf
2      GLQ      Unf
3      ALQ      Unf
4      GLQ      Unf
..
94     GLQ      Unf
95     ALQ      Unf
96     ALQ      Unf
97     Rec      Unf
98     ALQ      Unf
```

[99 rows x 2 columns]

0s completed at 11:06 PM

The screenshot shows a Google Colab notebook titled 'task6b.ipynb'. The code cell contains the following Python code:

```
#final dataset
print(df)
```

The output displays the first 99 rows of a dataset with 2 columns. The data is as follows:

	Id	MSSubClass	MSZoning	LotFrontage	LotArea	Street	Alley	LotShape	
0	1	60	RL	65.0	8450	Pave	No	Reg	
1	2	20	RL	80.0	9600	Pave	No	Reg	
2	3	60	RL	68.0	11250	Pave	No	IR1	
3	4	70	RL	60.0	9550	Pave	No	IR1	
4	5	60	RL	84.0	14260	Pave	No	IR1	
...	
94	95	60	RL	69.0	9337	Pave	No	IR1	
95	96	60	RL	0.0	9765	Pave	No	IR2	
96	97	20	RL	78.0	10264	Pave	No	IR1	
97	98	20	RL	73.0	10921	Pave	No	Reg	
98	99	30	RL	85.0	10625	Pave	No	Reg	

The notebook interface shows the code was completed at 11:06 PM. The bottom status bar indicates the temperature is 27°C and the date is 30/06/2022.

The screenshot shows the same Google Colab notebook, but the code cell now displays the second part of the dataset, specifically rows 94 to 98 and the last 36 columns. The data is as follows:

	LandContour	Utilities	...	MasVnrArea	ExterQual	ExterCond	Foundation	
0	Lv1	AllPub	...	196	Gd	TA	PConc	
1	Lv1	AllPub	...	0	TA	TA	CBlock	
2	Lv1	AllPub	...	162	Gd	TA	PConc	
3	Lv1	AllPub	...	0	TA	TA	BrkTil	
4	Lv1	AllPub	...	350	Gd	TA	PConc	
...	
94	Lv1	AllPub	...	0	TA	Gd	PConc	
95	Lv1	AllPub	...	68	Ex	Gd	PConc	
96	Lv1	AllPub	...	183	Gd	TA	PConc	
97	HLS	AllPub	...	48	TA	TA	CBlock	
98	Lv1	AllPub	...	0	TA	TA	BrkTil	

The notebook interface shows the code was completed at 11:06 PM. The bottom status bar indicates the temperature is 27°C and the date is 30/06/2022.

Question 3:

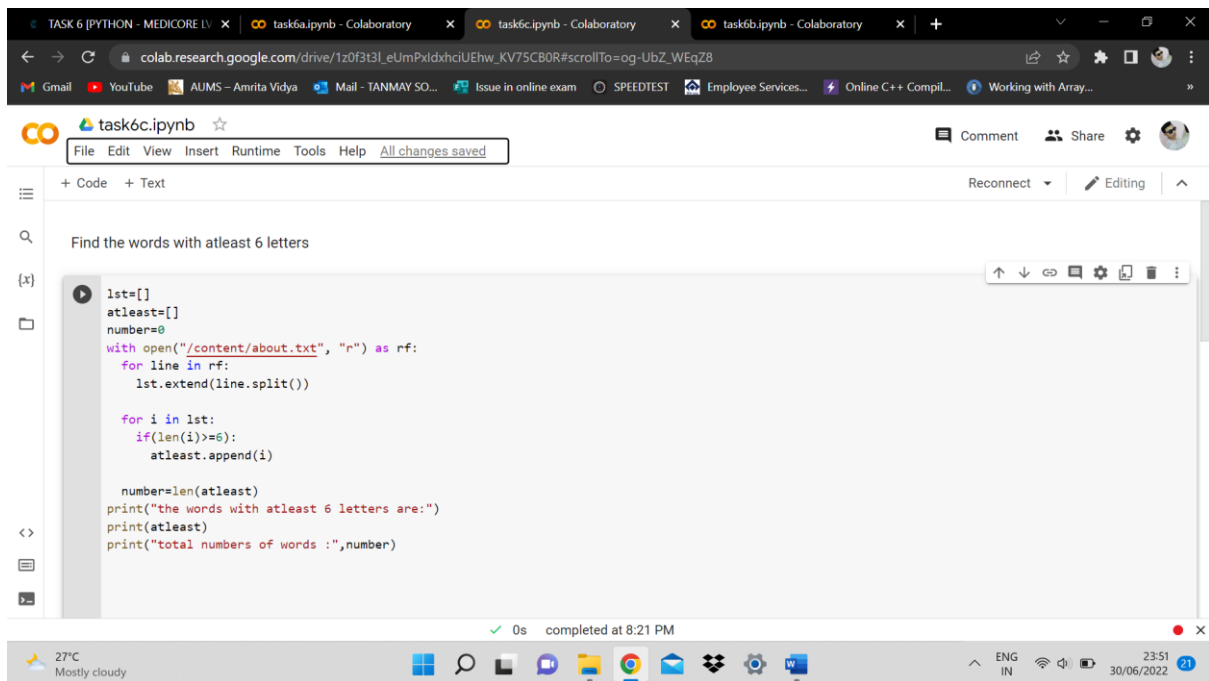
Contents of the file 'about.txt':

Python has tools for almost every aspect of scientific computing. The Bank of America uses Python to crunch its financial data and Facebook looks upon the Python library Pandas for its data analysis. While there are many libraries available to perform data analysis in Python, here are a few: NumPy, SciPy, Pandas and Matplotlib.

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Task 6

Output:



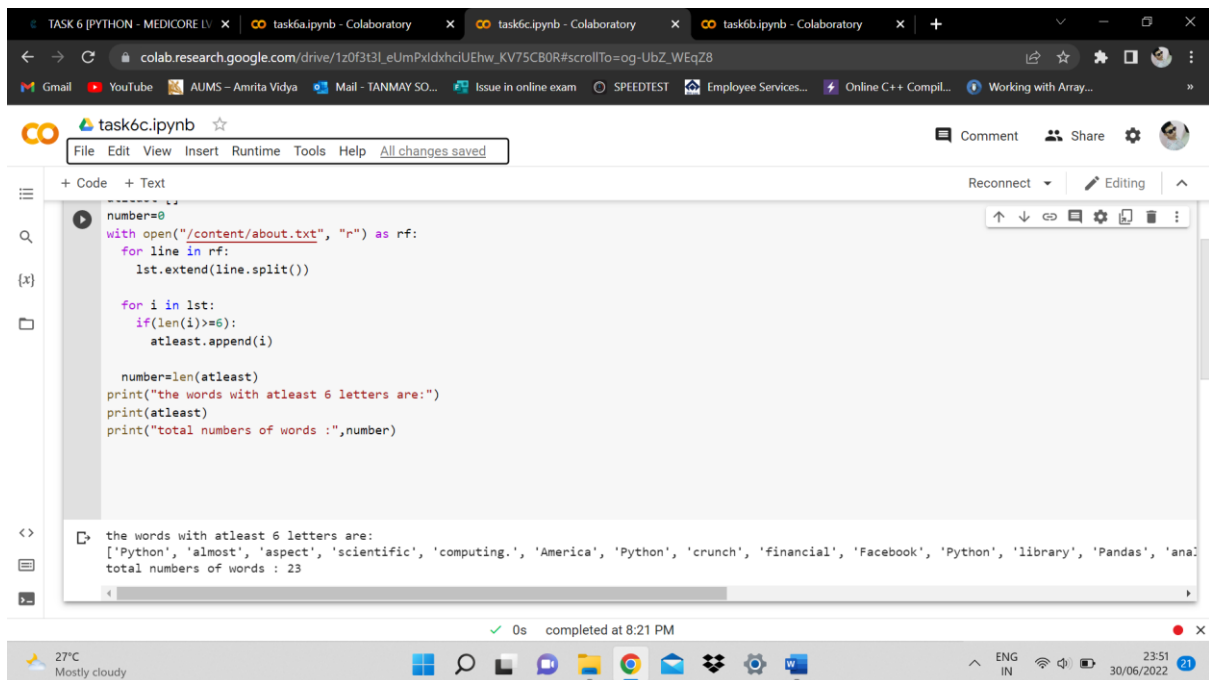
The screenshot shows a Jupyter Notebook titled 'task6c.ipynb' in a web browser. The code in the cell is as follows:

```
lst=[]
atleast=[]
number=0
with open("/content/about.txt", "r") as rf:
    for line in rf:
        lst.extend(line.split())

    for i in lst:
        if(len(i)>=6):
            atleast.append(i)

    number=len(atleast)
print("the words with atleast 6 letters are:")
print(atleast)
print("total numbers of words :",number)
```

The notebook interface includes a menu bar (File, Edit, View, Insert, Runtime, Tools, Help), a toolbar with icons for running, saving, and other actions, and a status bar at the bottom indicating '0s completed at 8:21 PM'.



This screenshot shows the same Jupyter Notebook after execution. The output of the code is displayed below the cell:

```
the words with atleast 6 letters are:
['Python', 'almost', 'aspect', 'scientific', 'computing.', 'America', 'Python', 'crunch', 'financial', 'Facebook', 'Python', 'library', 'Pandas', 'ana:
total numbers of words : 23
```

The status bar at the bottom still shows '0s completed at 8:21 PM'.

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Task 6

The screenshot shows a Google Colab notebook interface. The browser tabs at the top include 'TASK 6 [PYTHON - MEDICORE L...', 'task6a.ipynb - Colaboratory', 'task6c.ipynb - Colaboratory', and 'task6b.ipynb - Colaboratory'. The address bar shows a Google Drive link. The notebook title is 'task6c.ipynb'. The menu bar includes 'File', 'Edit', 'View', 'Insert', 'Runtime', 'Tools', 'Help', and 'All changes saved'. The left sidebar has icons for file explorer, search, and code execution. The main area has a title 'Find the most frequently used word' and a code editor with the following Python code:

```
lst=[]
with open("/content/about.txt", "r") as rf:
    for line in rf:
        lst.extend(line.split())

from collections import Counter

counts = Counter(lst)
max_key=max(counts, key=counts.get)
print("the word with maximum frequency is:")
print(max_key)
```

Below the code, the output is displayed: 'the word with maximum frequency is: Python'. At the bottom, a status bar shows '0s completed at 8:21 PM'. The system tray at the very bottom shows the date '30/06/2022' and time '23:52'.