

V2_using_pandas

November 1, 2025

1 Activity: Using Pandas

1.1 Introduction

In this activity you will practice using some of the basic functionality associated with Pandas. This activity will cover the following topics: - Creating a `DataFrame` - Displaying `DataFrame` information - Accessing column data - Getting ranges of column data - Creating Series from dictionaries - Using the `iloc()` and `loc()` methods - Getting data from multiple columns - Getting rows

Question 1 Create a `DataFrame` called `df` from the given CSV file `student_data.csv` then using the `df` `DataFrame`, assign the `Name` column to a `Series` called `names`.

```
[8]: import pandas as pd
      # Your code here

      df = pd.read_csv('student_data.csv')

      names = df['Name']

      print(names)

      #df.head()

      df.tail()
```

```
0    Jennifer Jackson
1    Michael Johnson
2      Robert Lee
3      Linda Harris
4    Michael Moore
...
70   William Johnson
71      Linda Smith
72    Jennifer Lee
73   Michael Miller
74    Emily Johnson
Name: Name, Length: 75, dtype: object
```

```
[8]:
```

	Name	Age	Math Grade	English Grade
70	William Johnson	17	99	75
71	Linda Smith	18	92	83
72	Jennifer Lee	17	75	88
73	Michael Miller	12	86	84
74	Emily Johnson	13	94	100

```
[9]: # Question 1 Grading Checks

assert isinstance(df, pd.DataFrame), "Did you create a DataFrame called df?"
assert isinstance(names, pd.Series), "Did you assign the Name column in a_
↳variable called names?"
```

Question 2 Using the `df` DataFrame, assign the `Age` and `Math Grade` columns to a DataFrame called `age_math`.

```
[11]: # Your code here

age_math = df[['Age', 'Math Grade']]

age_math.head()
```

```
[11]:
```

	Age	Math Grade
0	14	84
1	14	92
2	18	87
3	13	90
4	18	88

```
[12]: # Question 2 Grading Checks

assert isinstance(age_math, pd.DataFrame), "Did you assign the Age and Math_
↳Grade columns to a variable called age_math?"
```

Question 3 Using the `.loc()` method, assign the `Age` and `Math Grade` columns for the first 30 rows of `df` to a variable called `first_thirty_loc`.

```
[13]: # Your code here

first_thirty_loc = age_math.loc[0:29]
```

```
[14]: # Question 3 Grading Checks

assert isinstance(first_thirty_loc, pd.DataFrame), "Did you correctly assign_
↳the first 30 rows to a variable called first_thirty_loc?"
```

Question 4 Get the even numbered rows from the Name and English Grade columns and assign the result to a variable called `even_rows_english`.

```
[18]: # Your code here

# even_rows_english = df.loc[df.index % 2 == 0, ["Name", "English Grade"]]

even_rows_english = df.loc[0::2, ["Name", "English Grade"]]

#even_rows_english = df[['Name', 'English Grade']]
```

```
[19]: # Question 4 Grading Checks

assert isinstance(even_rows_english, pd.DataFrame), "Did you correctly assign_
↳even numbered rows to a variable called even_rows_english? Hint: the first_
↳row is index 0."
```