

Best Summer Job for High School Students



What will you learn in today's lesson?

- What makes a good job
- What is a data frame
- What is a function in python
- Finding the best summer job based on preferences

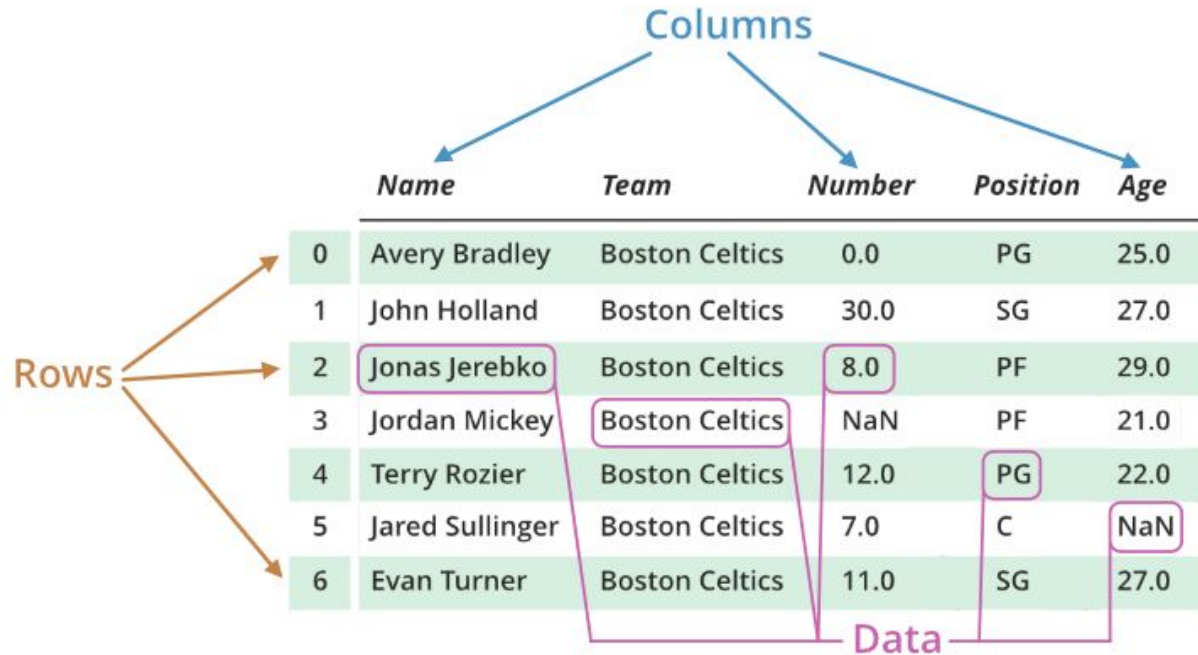
What are things you look for in a job?



What is a data frame?

- A data frame is simply data represented in a table with `r _ _ _` and `c _ _ _ _ _`
- It consists of three principal components, the data, rows, and columns.

Data Frame Example



The diagram illustrates a Data Frame structure. A table is shown with 7 rows and 6 columns. The columns are labeled *Name*, *Team*, *Number*, *Position*, and *Age*. The rows are indexed 0 through 6. Annotations include: 'Columns' with arrows pointing to the column headers; 'Rows' with arrows pointing to the row indices; and 'Data' with a bracket pointing to a selection of cells including 'Jonas Jerebko', 'Boston Celtics', '8.0', 'NaN', 'PG', and 'NaN'.

	<i>Name</i>	<i>Team</i>	<i>Number</i>	<i>Position</i>	<i>Age</i>
0	Avery Bradley	Boston Celtics	0.0	PG	25.0
1	John Holland	Boston Celtics	30.0	SG	27.0
2	Jonas Jerebko	Boston Celtics	8.0	PF	29.0
3	Jordan Mickey	Boston Celtics	NaN	PF	21.0
4	Terry Rozier	Boston Celtics	12.0	PG	22.0
5	Jared Sullinger	Boston Celtics	7.0	C	NaN
6	Evan Turner	Boston Celtics	11.0	SG	27.0

What is a function?

- A function is a block of `c _ _ _` that runs when it is called
- Functions are instructions that tell the computer to take the information we give, do something with it, and give us something new
- Why would you want to write a function instead of just writing out the code normally?

What is a conditional statement?

```
1 x = 4
2 y = 5
3 if y > x:
4     print( " y is a larger number than x " )
5 else:
6     print(" y is a smaller number than x " )
```

As $y > x$, so the statement under

```
>>> runfile('C:/Users/Aditya/PycharmProjects/Hell
y is a larger number than x
```

What is a boolean variable?

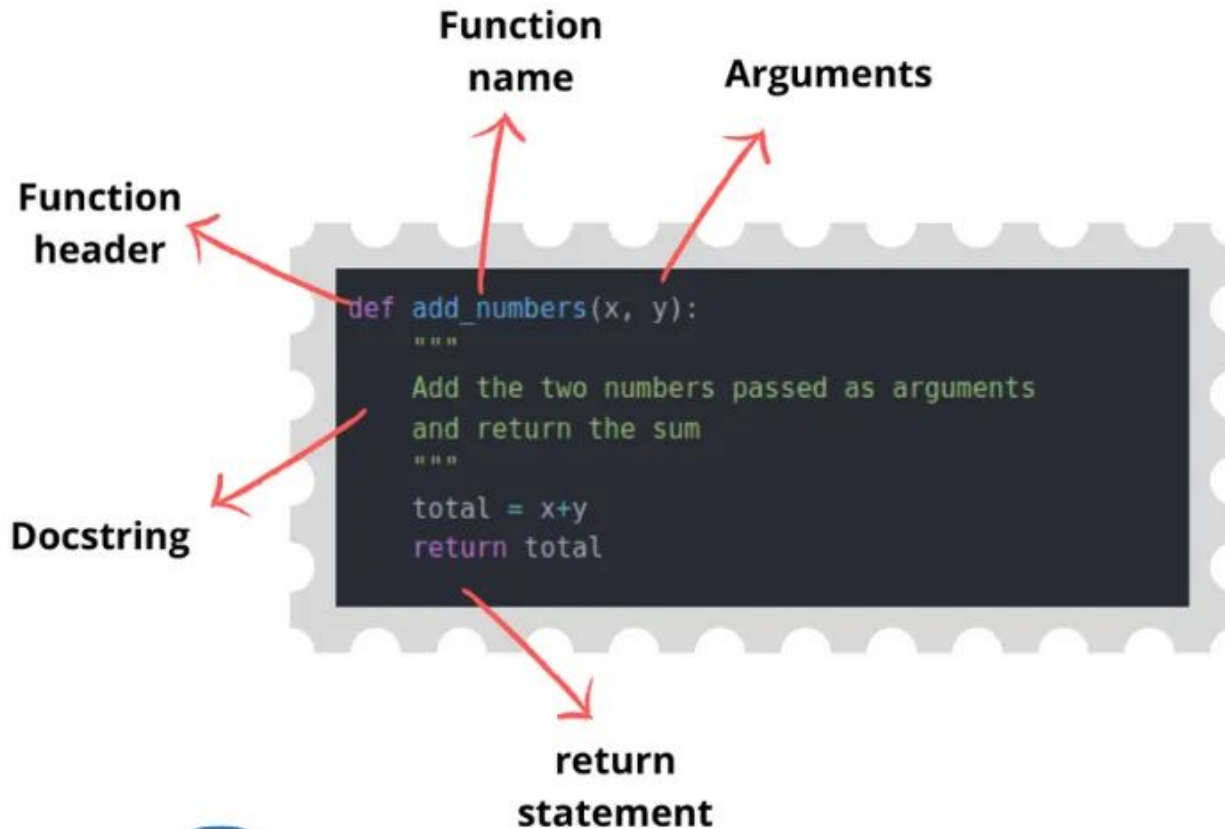
```
1 a = 20
2 b = 10
3 print(a > b)
4 print(b > a)
5 print(type(False))
```

Python Console: Hello (!)

```
sys.path.extend(['C:\\Users\\Aditya\\PycharmProjects\\Hello1',
PyDev console: starting.

Python 3.8.1 (tags/v3.8.1:1b293b6, Dec 18 2019, 22:39:24) [MSC
>>> runfile('C:/Users/Aditya/PycharmProjects/Hello1/Hello.py',
True
False
<class 'bool'>
```

Function Example



Last Question!

- We will use our Jupyter Notebook to write a function that helps us find the best sequence