[6]:
```
array([ 6,  7,  8,  9, 10, 11, 12, 13, 14, 15])
```

[7]:
```
import pandas as pd
```

[8]:
```
data={'apples':3,'bananas':2,'oranges':1}
series=pd.Series(data)
series['pears']=4
print(series)
```

```
apples     3
bananas    2
oranges    1
pears      4
dtype: int64
```

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Code

JupyterLab Python 3 (ipykernel)

```
dtype: int64
```

[10]:

```
df = pd.DataFrame({
    'name': ['Alice', 'Bob', 'Charlie', 'David', 'Eva', 'Frank', 'Grace', 'Hannah', 'Ian', 'Jack'],
    'age': [25, 30, 35, 40, 28, 32, 26, 29, 31, 27],
    'gender': ['F', 'M', 'M', 'M', 'F', 'M', 'F', 'F', 'M', 'M']
},columns=['name','age','gender'])
df
```

[10]:

	name	age	gender
0	Alice	25	F
1	Bob	30	M
2	Charlie	35	M
3	David	40	M
4	Eva	28	F
5	Frank	32	M
6	Grace	26	F
7	Hannah	29	F
8	Ian	31	M
9	Jack	27	M

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Code

JupyterLab | Python 3 (ipykernel)

[11]:
```
df['occupation'] = ['Programmer', 'Manager', 'Analyst', 'Programmer', 'Manager',
                    'Analyst', 'Programmer', 'Manager', 'Analyst', 'Programmer']
print(df)
```

```
      name  age gender  occupation
0    Alice   25      F  Programmer
1      Bob   30      M     Manager
2  Charlie   35      M     Analyst
3    David   40      M  Programmer
4      Eva   28      F     Manager
5    Frank   32      M     Analyst
6    Grace   26      F  Programmer
7   Hannah   29      F     Manager
8      Ian   31      M     Analyst
9     Jack   27      M  Programmer
```

[12]:
```
filtered_df=df[df['age']>=30]
print(filtered_df)
```

```
      name  age gender  occupation
1      Bob   30      M     Manager
2  Charlie   35      M     Analyst
3    David   40      M  Programmer
5    Frank   32      M     Analyst
8      Ian   31      M     Analyst
```

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Code JupyterLab Python 3 (ipykernel)

[15]:
```
# Save DataFrame to a CSV file
data = pd.read_csv('data.csv')
data
# Read the CSV file
df_new = pd.read_csv('data.csv')

# Display contents
print(df_new)
```

```
      name  age gender  occupation
0    Alice   25      F  Programmer
1      Bob   30      M     Manager
2  Charlie   35      M     Analyst
3    David   40      M  Programmer
4      Eva   28      F     Manager
5    Frank   32      M     Analyst
6    Grace   26      F  Programmer
7   Hannah   29      F     Manager
8      Ian   31      M     Analyst
9     Jack   27      M  Programmer
```

[ ]:

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Code

JupyterLab | Python 3 (ipykernel)

[2]:
```
import numpy as np
```

[3]:
```
s1=np.arange(1,11,1)
s1
```

[3]:
```
array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10])
```

[4]:
```
s1.reshape(2,5)
```

[4]:
```
array([[ 1,  2,  3,  4,  5],
       [ 6,  7,  8,  9, 10]])
```

[5]:
```
s2=np.arange(1,21,1)
s2
```

[5]:
```
array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11, 12, 13, 14, 15, 16, 17,
       18, 19, 20])
```

[6]:
```
s2[5:15]
```

[6]:
```
array([ 6,  7,  8,  9, 10, 11, 12, 13, 14, 15])
```

[7]:
```
import pandas as pd
```

[8]:
```
data={'apples':3,'bananas':2,'oranges':1}
series=pd.Series(data)
series['pears']=4
print(series)
```

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