```python
import numpy as np
import matplotlib.pyplot as plt

# Dataset generation

data_dict = {'CSE':33, 'ECE':28, 'EEE':30}

courses = list(data_dict.keys())

values = list(data_dict.values())

fig = plt.figure(figsize = (10, 5))

#  Bar plot
plt.bar(courses, values, color ='green', width = 0.5)

plt.xlabel("Courses offered")

plt.ylabel("No. of students enrolled")

plt.title("Students enrolled in different courses")

plt.show()
```
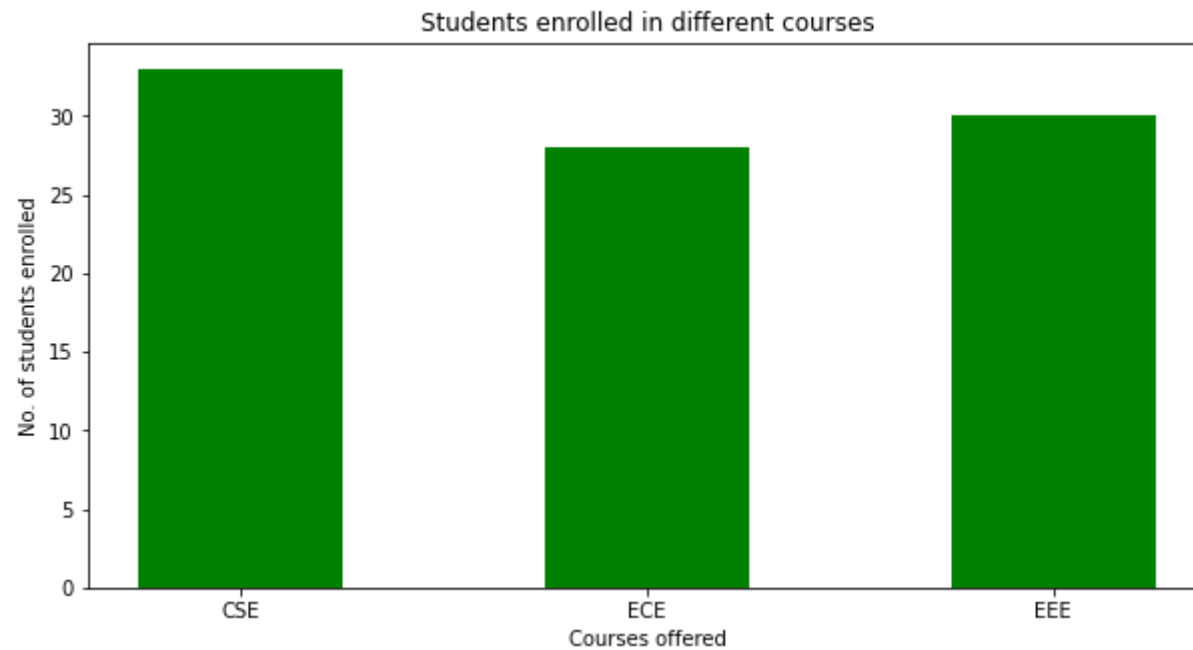
Students enrolled in different courses

In [2]:
```python
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import itertools
```
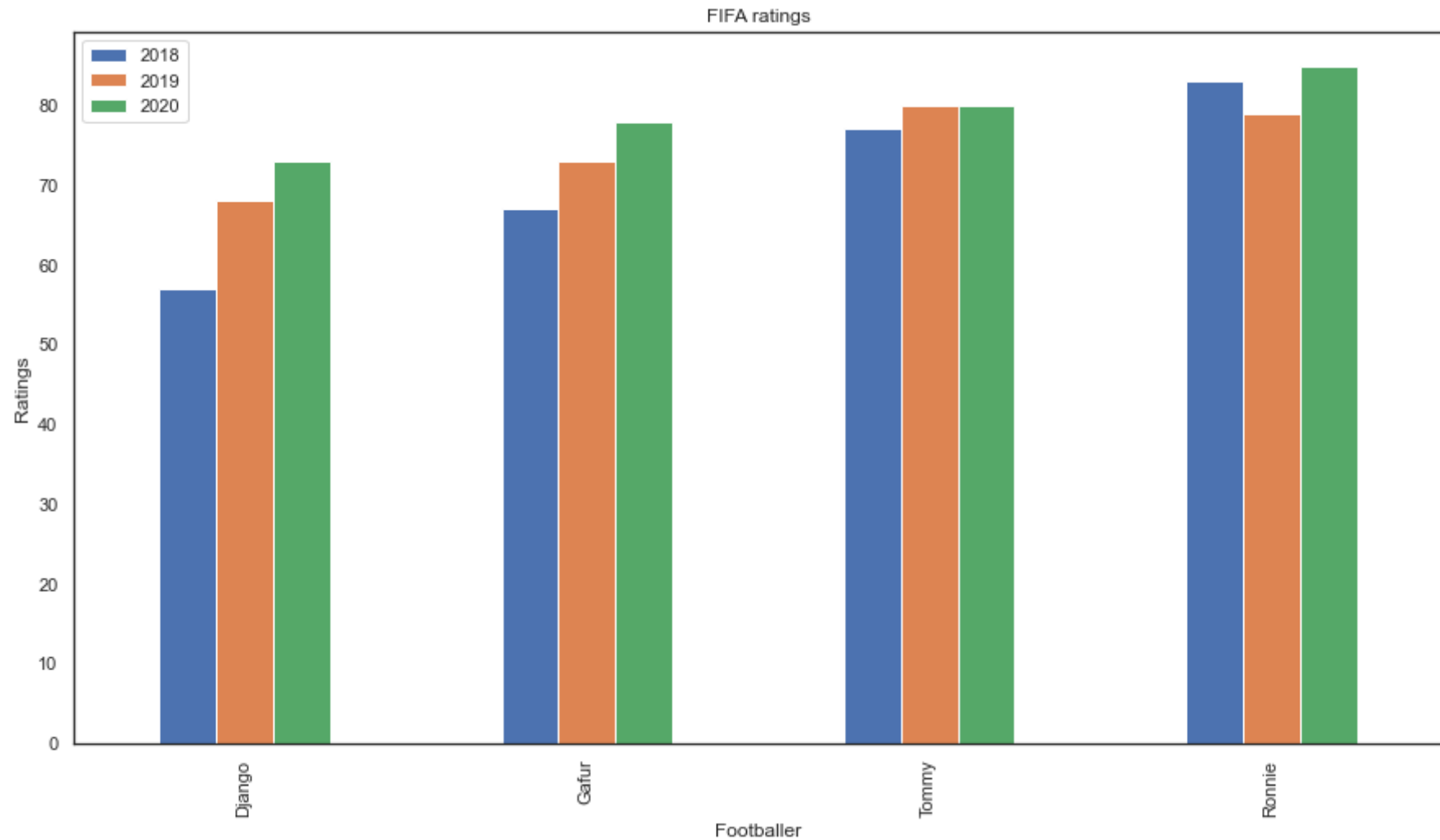
In [4]:
```python
import pandas as pd

plotdata = pd.DataFrame({

    "2018":[57,67,77,83],

    "2019":[68,73,80,79],

    "2020":[73,78,80,85]},

    index=["Django", "Gafur", "Tommy", "Ronnie"])

plotdata.plot(kind="bar",figsize=(15, 8))

plt.title("FIFA ratings")

plt.xlabel("Footballer")
```

```
plt.ylabel("Ratings")
```

Out[4]: Text(0, 0.5, 'Ratings')

In [5]:
```
import pandas as pd

plotdata = pd.DataFrame({
    "2018":[57,67,77,83],
    "2019":[68,73,80,79],
    "2020":[73,78,80,85]},
```

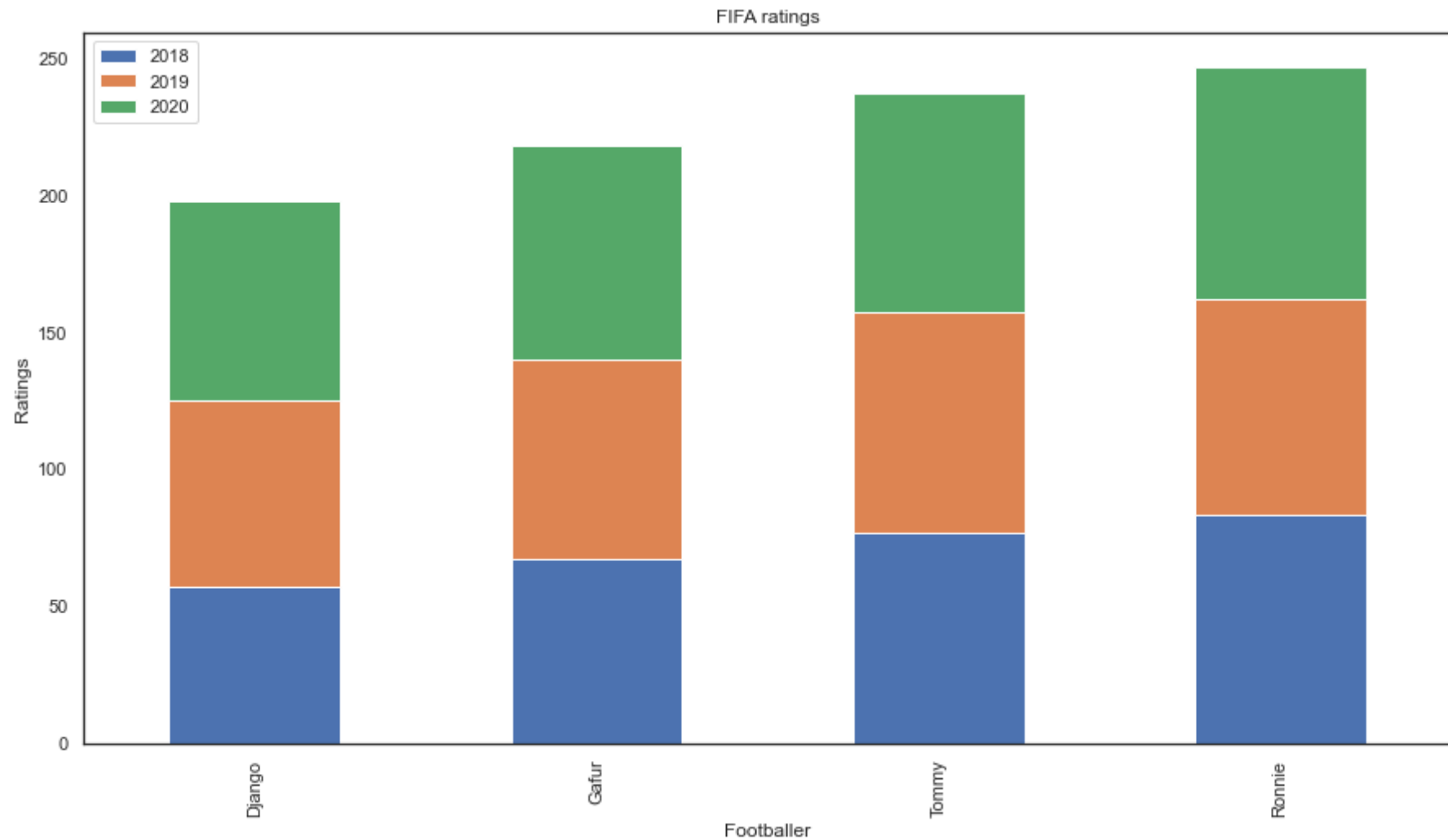```
      index=["Django", "Gafur", "Tommy", "Ronnie"])

plotdata.plot(kind='bar', stacked=True,figsize=(15, 8))

plt.title("FIFA ratings")

plt.xlabel("Footballer")

plt.ylabel("Ratings")
```

Out[5]: Text(0, 0.5, 'Ratings')

```
In [8]:   import numpy as np
          import matplotlib.pyplot as plt

          # creating the dataset
          data = {'C':20, 'C++':15, 'Java':30, 'Python':35}

          courses = list(data.keys())

          values = list(data.values())

          fig = plt.figure(figsize = (10, 5))

          # creating the bar plot
          plt.bar(courses, values, color ='blue', width = 0.4)

          plt.xlabel("Courses offered")

          plt.ylabel("No. of students enrolled")

          plt.title("Students enrolled in different courses")

          plt.show()
```
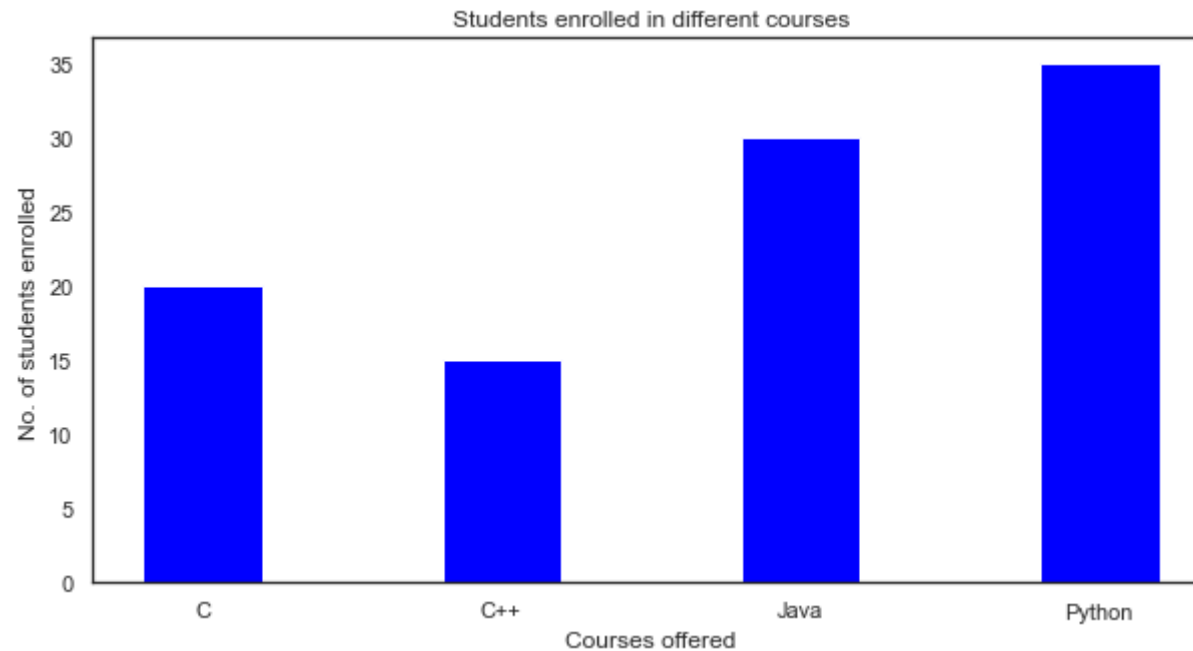
Students enrolled in different courses

In [15]:
```python
import pandas as pd
from matplotlib import pyplot as plt

# Read CSV into pandas
data = pd.read_csv("C:/Users/USER/Desktop/MLLABDOCS-11OCT2021/CARS-02.csv")
data.head()
df = pd.DataFrame(data)

name = df['car'].head(12)
price = df['price'].head(12)

# Figure Size
fig = plt.figure(figsize =(10, 7))

# Horizontal Bar Plot
plt.bar(name[0:10], price[0:10])

# Show Plot
plt.show()
```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
```

```
~\anaconda3\lib\site-packages\pandas\core\indexes\base.py in get_loc(self, key, method, tolerance)
   2894                try:
-> 2895                    return self._engine.get_loc(casted_key)
   2896                except KeyError as err:

pandas\_libs\index.pyx in pandas._libs.index.IndexEngine.get_loc()

pandas\_libs\index.pyx in pandas._libs.index.IndexEngine.get_loc()

pandas\_libs\hashtable_class_helper.pxi in pandas._libs.hashtable.PyObjectHashTable.get_item()

pandas\_libs\hashtable_class_helper.pxi in pandas._libs.hashtable.PyObjectHashTable.get_item()

KeyError: 'car'

The above exception was the direct cause of the following exception:

KeyError                                  Traceback (most recent call last)
<ipython-input-15-e1ec922caf80> in <module>
      7 df = pd.DataFrame(data)
      8
----> 9 name = df['car'].head(12)
     10 price = df['price'].head(12)
     11

~\anaconda3\lib\site-packages\pandas\core\frame.py in __getitem__(self, key)
   2900                if self.columns.nlevels > 1:
   2901                    return self._getitem_multilevel(key)
-> 2902                indexer = self.columns.get_loc(key)
   2903                if is_integer(indexer):
   2904                    indexer = [indexer]

~\anaconda3\lib\site-packages\pandas\core\indexes\base.py in get_loc(self, key, method, tolerance)
   2895                    return self._engine.get_loc(casted_key)
   2896                except KeyError as err:
-> 2897                    raise KeyError(key) from err
   2898
   2899        if tolerance is not None:

KeyError: 'car'
```

In [22]:
```python
import pandas as pd
from matplotlib import pyplot as plt

# Read CSV into pandas
data = pd.read_csv("C:/Users/USER/Desktop/MLLABDOCS-11OCT2021/CARS-02.csv")
```

```
data.head()
df = pd.DataFrame(data)
```

KeyError   Traceback (most recent call last)
~\anaconda3\lib\site-packages\pandas\core\indexes\base.py in get_loc**(self, key, method, tolerance)**
   2894   **try:**
-> **2895**   **return** self._engine.get_loc**(**casted_key**)**
   2896   **except** KeyError **as** err:

pandas_libs\index.pyx in pandas._libs.index.IndexEngine.get_loc**()**

pandas_libs\index.pyx in pandas._libs.index.IndexEngine.get_loc**()**

pandas_libs\hashtable_class_helper.pxi in pandas._libs.hashtable.PyObjectHashTable.get_item**()**

pandas_libs\hashtable_class_helper.pxi in pandas._libs.hashtable.PyObjectHashTable.get_item**()**

KeyError: 0

The above exception was the direct cause of the following exception:

KeyError   Traceback (most recent call last)
<ipython-input-22-b876da49bdf2> in <module>
      7 df = pd.DataFrame**(**data**)**
      8
----> **9** df**[**data**[0]]**

~\anaconda3\lib\site-packages\pandas\core\frame.py in __getitem__**(self, key)**
   2900   **if** self.columns.nlevels **> 1:**
   2901   **return** self._getitem_multilevel**(**key**)**
-> **2902**   indexer **=** self.columns.get_loc**(**key**)**
   2903   **if** is_integer**(**indexer**):**
   2904   indexer **= [**indexer**]**

~\anaconda3\lib\site-packages\pandas\core\indexes\base.py in get_loc**(self, key, method, tolerance)**
   2895   **return** self._engine.get_loc**(**casted_key**)**
   2896   **except** KeyError **as** err:
-> **2897**   **raise** KeyError**(**key**) from** err
   2898
   2899   **if** tolerance **is not** None**:**

KeyError: 0
```