Python programs

1.Reverse a string “WorldWord”. Hint: :: or join

2. Remove duplicates in [’dog’,’cat’,’tiger’,’dog’, ‘tiger’]
Hint: use set

3. Perform union and intersection using Set

4. Create virtual environment and show installation of package matplotlib and import of modules for visualization.

5. Create a range to display players list within Players class

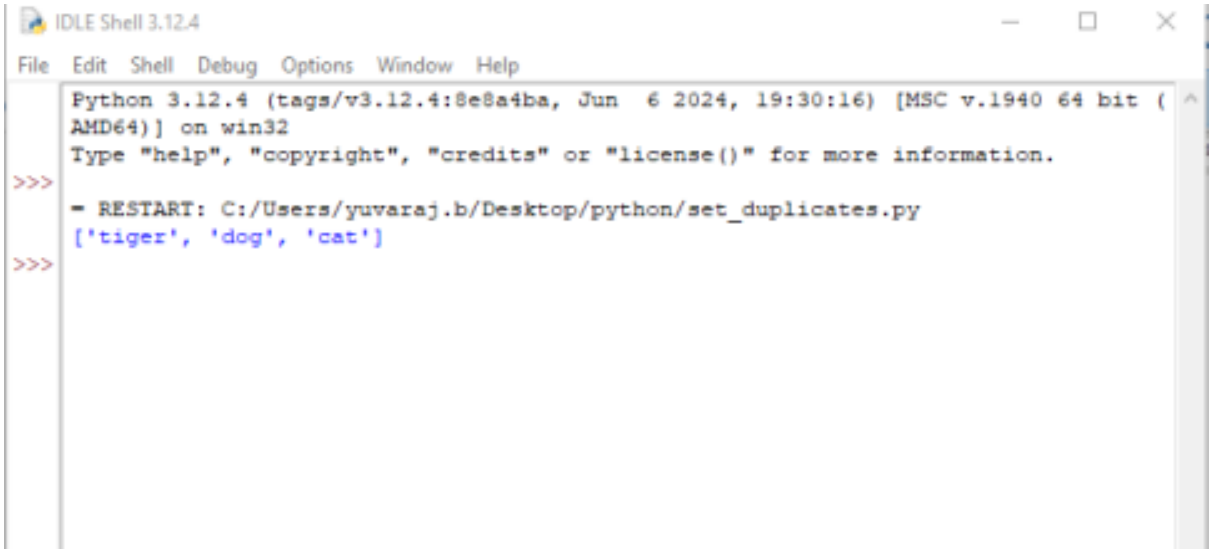
Answers:- 1. Reverse a string “WorldWord”. Hint: :: or join

```
#Reverse String
a=input("Enter the string : ")
t=""
for i in a:
 t=i+t
print("Reverse String : ",t)
```

output:-

2. **CODE:**

```
animals = ['dog', 'cat', 'tiger', 'dog', 'tiger']
unique = list(set(animals))
print(unique)
```

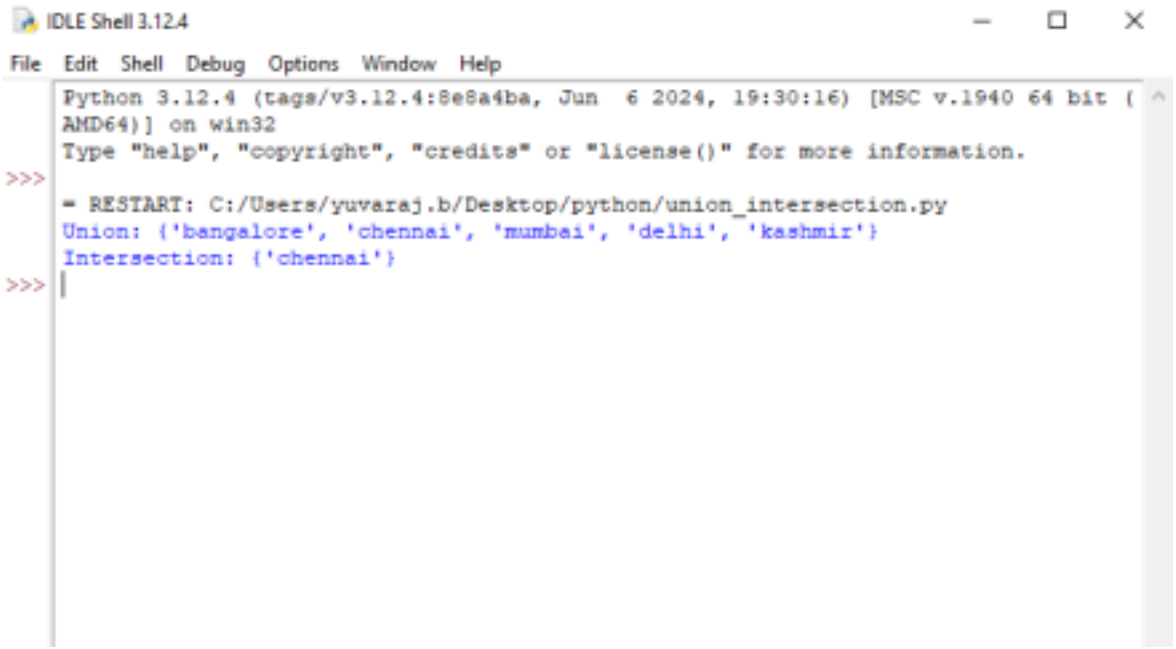


3. Perform union and intersection using Set

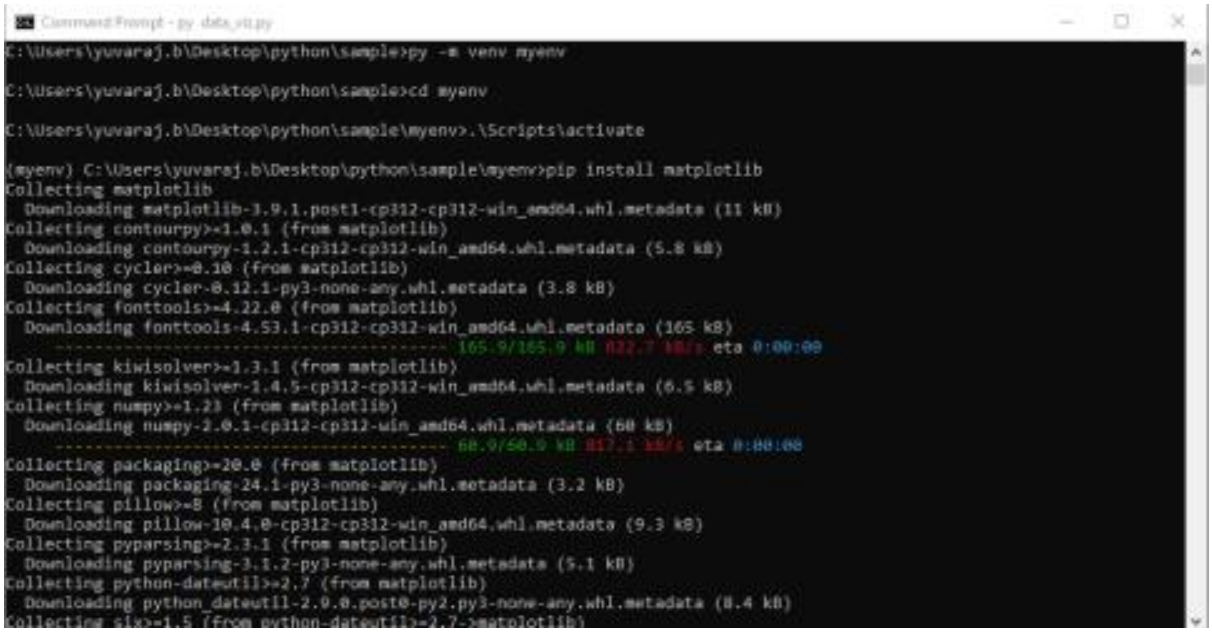
CODE:

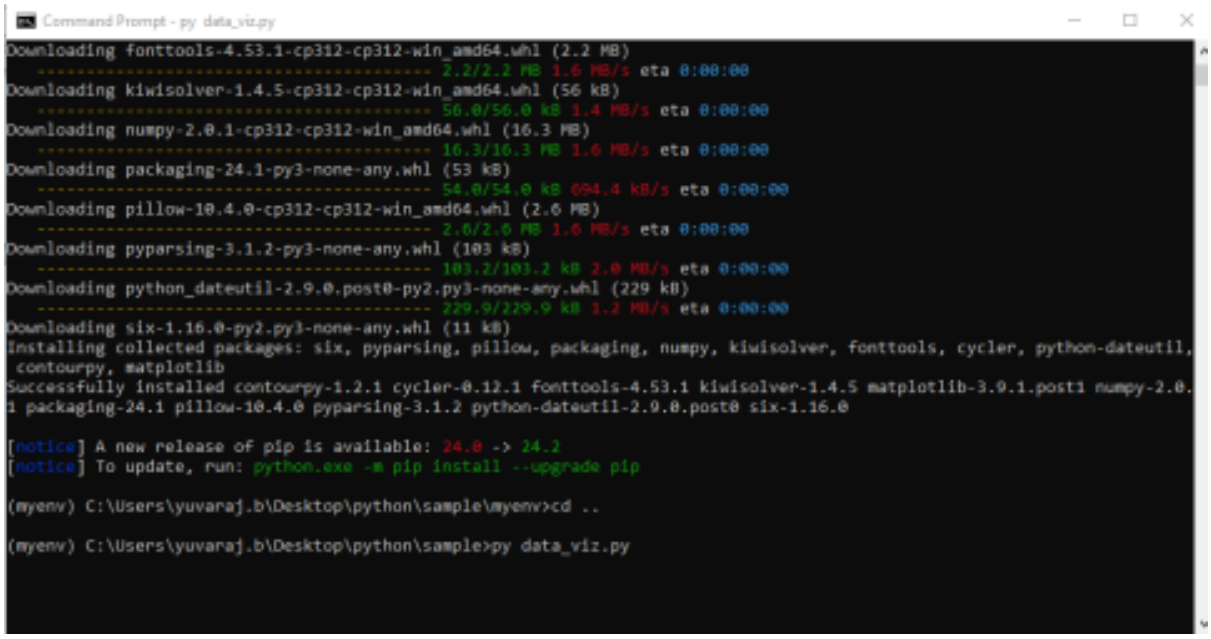
```
# Define two sets
set1 = {'chennai', 'mumbai', 'delhi'}
set2 = {'chennai', 'bangalore', 'kashmir'}

# Union of set1 and set2
union_set = set1 | set2
print("Union:", union_set)

# Intersection of set1 and set2
intersection_set = set1 & set2
print("Intersection:", intersection_set)
```

OUTPUT:



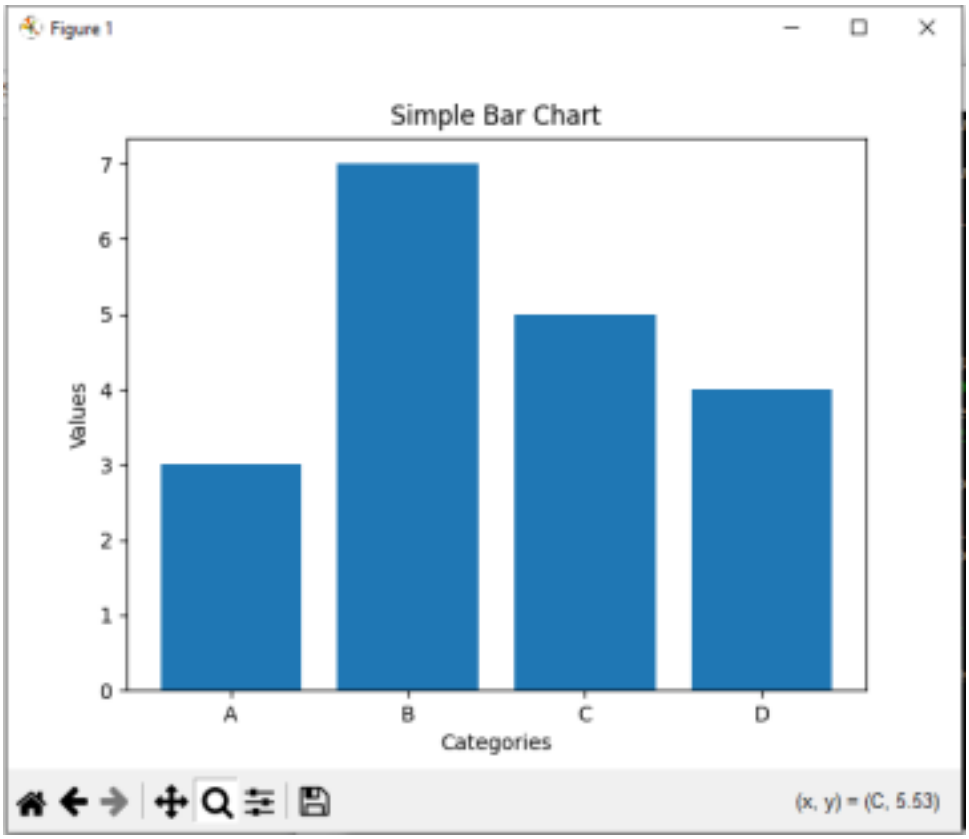
4. Create virtual environment and show installation of package matplotlib and import of modules for visualization.






```
import matplotlib.pyplot as plt
def simple_bar_chart():
 # Sample data
 categories = ['A', 'B', 'C', 'D']
 values = [3, 7, 5, 4]
 # Create a bar chart
 plt.bar(categories, values)
 # Add title and labels
 plt.title('Simple Bar Chart')
 plt.xlabel('Categories')
 plt.ylabel('Values')
 # Save the plot as a PNG file
 plt.savefig('bar_chart.png')
 # Display the plot
 plt.show()

if __name__ == "__main__":
 simple_bar_chart()
```

OUTPUT:



5. Create a range to display players list within Players class

CODE:

```
class Players:
 def __init__(self, players_list):
 self.players_list = players_list

 def display_players_in_range(self, start, end):
 # Ensure the start and end indices are within bounds
 start = max(0, start)
 end = min(len(self.players_list), end)
```

```
# Display the players within the specified range
for i in range(start, end):
print(self.players_list[i])

# Example usage:
players = Players(['Ashwin', 'Bumrah', 'Chahal', 'Dhoni', 'Rohit',
'Virat'])
players.display_players_in_range(1, 4) # Displays players
from index 1 to 3 (Bob, Charlie,  David)
```

OUTPUT: