# ASSIGNMENT – 2

**1. Write a Python for loop that prints the numbers from 1 to 10.**

```
for i in range (1,11):
    print(i,end=' ')
```

**Output:**

```
1 2 3 4 5 6 7 8 9 10
```

**2. Create a list of fruits (e.g., ["apple", "banana", "cherry"]) and write a for loop to print each fruit in the list.**

```
fruits=['apple','orange','grapes','pineapple']
for i in fruits:
    print(i)
```

**output:**

```
apple
orange
grapes
pineapple
```

**3. Write a Python program that calculates the sum of all even numbers from 1 to 50 using a for loop.**

```
sum=0
for i in range(1,50):
  if(i%2==0):
   sum=sum+i
print(sum)
```

**output:**

**600**

**4. Create a list of integers, and using a for loop, find and print the largest number in the list.**

```
max=0
list=[10,28,2,14,60,30,4]
for i in list:
    if i>max:
        max=i
print(max)
```

**output:**

```
60
```

**5. Write a Python program that uses a for loop to find and print all the prime numbers between 1 and 100. A prime number is a positive integer greater than 1 that has no positive integer divisors other than 1 and itself.**

```
for i in range(1,100):
    for j in range(2,i):
        if i%j==0:
            break
    else:
        print(i,end=' ')
```

**output:**

```
1 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
```

**6. Write a Python program that takes a list of dictionaries, where each dictionary represents a person with keys "name" and "age." Find and print the average age of all the people in the list.**

```
def average_age(people):
    total_age = 0
    count = 0

    for person in people:
        total_age =total_age+ person["age"]
        count =count+1

    if count == 0:
        return "No people in the list"
    else:
        return total_age / count

people = [
    {"name": "abc", "age": 29},
    {"name": "efg", "age": 50},
    {"name": "hij", "age": 30},
]

print(average_age(people))
```

**output:**

```
36.333333333333336
```

**7. Create a dictionary representing a simple inventory system for a store. Implement a function that allows you to update the quantity of items in the inventory by specifying the item name and the new quantity.**

```
inventory = {
```

```
    "pen": 50,
    "pencil": 30,
    "eraser": 20,
    "book": 100,
    "sticker": 50,
}
def update_inventory(item_name, new_quantity):
    if item_name in inventory:
        inventory[item_name] = new_quantity
    else:
        print(f"Error: Item '{item_name}' not found in the inventory.")
update_inventory("pen", 60)
update_inventory("book", 70)
# Print the updated inventory
print(inventory)
```

**output:**

```
{'pen': 60, 'pencil': 30, 'eraser': 20, 'book': 70, 'sticker': 50}
```