Lecture 16

Special Class

To Become Interview Ready

Strings in Python

List in Python

Question 1

In [ ]:
```
a. Create a list named data_points containing integers
representing data values: [10, 20, 30, 40, 50].

b. Add the value 60 to the end of the list.
c. Insert the value 5 at the beginning of the list.
d. Remove the value 30 from the list.
e. Print the modified list.
```

In [4]:
```
data_points = [10, 20, 30, 40, 50]
data_points.append(60)
print(data_points)

data_points.insert(0,5)
print(data_points)

data_points.remove(30)
print(data_points)

print("modifies list is", data_points)
```

```
[10, 20, 30, 40, 50, 60]
[5, 10, 20, 30, 40, 50, 60]
[5, 10, 20, 40, 50, 60]
modifies list is [5, 10, 20, 40, 50, 60]
```

In [ ]:

In [ ]:

Question 2

In [ ]:
```
Student Enrollment Status

You are managing student enrollments for a course
and want to determine their enrollment
status based on their course credits. Create a program that:

1) Asks the user to input the number of students.
2) Asks the user to input the course credits for each student, storing them in
3) Determines the enrollment status for each student:
"Full-time" if course credits are greater than or equal to 12.
"Part-time" if course credits are less than 12.
4) Prints out the enrollment status for each student.
```

In [8]:
```
num_students = int(input("enter the number of students"))

course_credits = []

for i in range(num_students):
    credits = int(input("enter the course credit for student:"))
    course_credits.append(credits)
    print(course_credits)

enrollment_status = []
for credits in course_credits:
    if credits>=12:
        enrollment_status.append("Full_time")
    else:
        enrollment_status.append("part-time")

for i in range(num_students):
    print(f"student {i+1} : enrollment status - {enrollment_status[i]}")
```

```
enter the number of students5
enter the course credit for student:14
[14]
enter the course credit for student:10
[14, 10]
enter the course credit for student:15
[14, 10, 15]
enter the course credit for student:6
[14, 10, 15, 6]
enter the course credit for student:17
[14, 10, 15, 6, 17]
student 1 : enrollment status - Full_time
student 2 : enrollment status - part-time
student 3 : enrollment status - Full_time
student 4 : enrollment status - part-time
student 5 : enrollment status - Full_time
```

In [ ]:

In [ ]:

Question 3

In [ ]:
```
Age Group Classification

You are analyzing demographic data and want to classify
people into different age groups. Create a program that:

Asks the user to input the number of people.
Asks the user to input the ages of each person, storing them in a list.
Classifies each person into one of the following
age groups: "Child" (age < 18), "Adult" (18 <= age < 65), or "Senior" (age >=
Prints out the number of people in each age group.
```

In [1]:
```
num_people = int(input("enter the number of people"))

ages = []

for i in range(num_people):
    age = int(input("enter the age of the person"))
    ages.append(age)

child_count = 0
adult_count = 0
senior_count= 0

for age in ages:
    if age<18:
        child_count = child_count+1

    elif age>=18 and age<65:
        adult_count=adult_count+1

    else:
        senior_count=senior_count+1

print("Number of people in each age group")
print("children",child_count)
print("adult",adult_count)
print("senior",senior_count)
```

```
enter the number of people6
enter the age of the person47
enter the age of the person56
enter the age of the person12
enter the age of the person14
enter the age of the person89
enter the age of the person67
Number of people in each age group
children 2
adult 2
senior 2
```

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

homework - 1

In [ ]:
```
String Methods:
a. Create a string variable sentence with any sentence of your choice.
b. Convert the sentence to uppercase.
c. Split the sentence into a list of words.
d. Join the words in the list using a space as the separator.
e. Print the modified sentence.
```

homework - 2

In [ ]:
```
List Sorting:
a. Create a list named ages containing integers representing ages of individua
b. Sort the list in ascending order.
c. Sort the list in descending order.
d. Print the sorted lists.
```

In [ ]:

In [ ]:

In [ ]:

In [ ]: