CodeWay Task-1

To-Do List application

In [2]:
```
tasks=[{'Task': 'Study', 'completed': False},
       {'Task': 'Walking', 'completed': False},
       {'Task': 'Meeting At 6', 'completed': False},
       {'Task': 'Doctor Appointment', 'completed': False}]
```

In [3]:
```
### Function for adding task
def add_new_task():
    new_task=input("Enter task:\n")
    tasks.append({'Task':new_task,'completed':False})
    print("Task '{}' is added to your list\n".format(new_task))

# Function for update task
def update_task():
    print('Select your task to be updated')
    for i in range(len(tasks)):
        print(f'{i+1}:{tasks[i]}')
    task_num=int(input("\nEnter your task num :"))-1
    #print(task_num)
    if 0 <= task_num < len(tasks):
        print(f'You have select {tasks[task_num]}')
        update_values(task_num)
    else:
        print(f"Invalid Range..! Enter between 1 to {len(tasks)}")

# Function for updating values
def update_values(num):
    while True:
        try:
            update_input=int(input('To updated Task Name enter 0 \nTo update Task status enter 1 \nTo Delete Task enter
            if update_input==0:
                new_task_name = input('Enter the new task name: ')
                tasks[num]['Task'] = new_task_name
                print(f'Task name updated to: {new_task_name}')
            elif update_input == 1:
                tasks[num]['completed'] = not tasks[num]['completed']
                status = "Completed" if tasks[num]['completed'] else "Not Completed"
                print(f'Task status updated to: {status}\n')
            elif update_input==2:
                deleted_task = tasks.pop(num)
                print(f'{deleted_task} is deleted.')
            elif update_input == 3:
                print("Exiting the update process.\n")
                break
            else:
                print('Enter a valid number')
        except ValueError:
            print("Invalid input, please enter valid input")
        else:
            break


# Function for tracking task
def track_task():
    print("Your Task List\n")
    for i in range(len(tasks)):
        print(f'{i+1}:{tasks[i]}')
    print('\n')

############ main Loop ########################
while True:
    print("To Add new task     : Enter 1")
    print("To Update task      : Enter 2")
    print("To Track your task : Enter 3")
    print("To Exit Application: Enter 4\n")
    try:
        choice=int(input("Enter your choice (1-4):\n"))
        if choice==1:
            add_new_task()
        elif choice==2:
            update_task()
        elif choice==3:
            track_task()
        elif choice == 4:
            print("Exiting the application.")
            break
        else:
            print("please enter a valid choice")
    except ValueError:
        print('Invalid input. Please enter a number.\n')
```

```
To Add new task     : Enter 1
To Update task      : Enter 2
To Track your task : Enter 3
To Exit Application: Enter 4

Enter your choice (1-4):
1
Enter task:
movie
Task 'movie' is added to your list

To Add new task     : Enter 1
To Update task      : Enter 2
To Track your task : Enter 3
To Exit Application: Enter 4

Enter your choice (1-4):
3
Your Task List

1:{'Task': 'Study', 'completed': False}
2:{'Task': 'Walking', 'completed': False}
3:{'Task': 'Meeting At 6', 'completed': False}
4:{'Task': 'Doctor Appointment', 'completed': False}
5:{'Task': 'movie', 'completed': False}


To Add new task     : Enter 1
To Update task      : Enter 2
To Track your task : Enter 3
To Exit Application: Enter 4

Enter your choice (1-4):
2
Select your task to be updated
1:{'Task': 'Study', 'completed': False}
2:{'Task': 'Walking', 'completed': False}
3:{'Task': 'Meeting At 6', 'completed': False}
4:{'Task': 'Doctor Appointment', 'completed': False}
5:{'Task': 'movie', 'completed': False}

Enter your task num :4
You have select {'Task': 'Doctor Appointment', 'completed': False}
To updated Task Name enter 0
To update Task status enter 1
To Delete Task enter 2:2
{'Task': 'Doctor Appointment', 'completed': False} is deleted.
To Add new task     : Enter 1
To Update task      : Enter 2
To Track your task : Enter 3
To Exit Application: Enter 4

Enter your choice (1-4):
3
Your Task List

1:{'Task': 'Study', 'completed': False}
2:{'Task': 'Walking', 'completed': False}
3:{'Task': 'Meeting At 6', 'completed': False}
4:{'Task': 'movie', 'completed': False}


To Add new task     : Enter 1
To Update task      : Enter 2
To Track your task : Enter 3
To Exit Application: Enter 4

Enter your choice (1-4):
4
Exiting the application.
```

CodeWay Task-2

Simple Calculator

In [4]:
```
def add():
    result=num1+num2
    print("Addtion of both numbers=",result)

def sub():
    result=num1-num2
    print("Subtraction of both numbers=",result)


def mul():
    result=num1*num2
    print("Multiplication of both numbers=",result)

def div():
    if num1 and num2!=0:
        result=num1/num2
        print("Division of both numbers=",result)
    else:
        print("Invalid input,Zero cannot be divisible..!")

try:
    num1=int(input("Enter number:"))
    num2=int(input("Enter number:"))

    choice=int(input("Enter 0 For Addition\n Enter 1 for Subtraction\n Enter 2 for Multiplication\n Enter 3 for Divisio

    if choice==0:
        add()
    elif choice==1:
        sub()
    elif choice==2:
        mul()
    elif choice==3:
        div()
    else:
        print("Enter values between 0 to 3")
except Exception as e:
    print(e)
```

```
Enter number:34
Enter number:56
Enter 0 for Addition
 Enter 1 for Subtraction
 Enter 2 for Multiplication
 Enter 3 for Division:
2
Multiplication of both numbers= 1904
```

Codeway Task-3

Password Generator

In [5]:
```
import random
import string

def password_generator():
    letters=list(string.ascii_lowercase+
                 string.digits+
                 string.ascii_uppercase+
                 '#'+'$'+'&'+'@'+'%'+'$'+'@')
    password=[random.choice(letters) for i in range(length)]
    password_str = ''.join(password)
    print("Your Password is:",password_str)


try:
    length=int(input("Enter Length of Password:"))
    if length>=8:
        password_generator()
    else:
        print("Enter length above or Equal to 8")
except:
    print("Invalid Input")
```

```
Enter Length of Password:11
Your Password is: Y9rqg1V3xjr
```

CodeWay Task-5

Quiz Game

In [6]:
```
print("Welcome to the English Grammar Quiz!")
print("Test your knowledge of grammar with these questions.")
print("Type the correct answers and see how many you get right!\n")

quiz_questions = [
    {"Choose the correct form: 'She _____ (has/have) a new car.'", "has"},
    {"Identify the type of pronoun in the sentence: 'They gave her the award.' (Personal/Relative/Indefinite)", "indefi
    {"Complete the sentence: 'Neither of them _____ (is/are) coming to the party.'", "is"},
    {"What is the past tense of the verb 'sing'? (_____)", "sang"},
    {"Choose the correct preposition: 'I am allergic ____ cats.' (to/in/with)", "to"},
    {"Correct the sentence: 'The book is laying on the table.' (_____)", "lying"},
    {"Which word is a pronoun: 'cat' or 'it'?", "it"},
    {"What is the plural form of 'child'?", "children"},
    {"Choose the correct form: 'She _____ (is/am/are) my best friend.'", "is"},
    {"Identify the conjunction in the sentence: 'I like both chocolate and vanilla ice cream.' (_____)", "and"}
]

def quiz():
    count = 0
    marks = 0

    while count < len(quiz_questions):
        question, correct_answer = quiz_questions[count]
        answer = input(f"{question} ").lower()

        if answer == correct_answer:
            print("Correct!")
            marks+= 1
        else:
            print(f"The answer is {correct_answer!r}, not {answer!r}")


        count += 1

        if count < len(quiz_questions):
            print("To Continue press 1, To Exit press 2")
            choice = 0
            while choice not in [1, 2]:
                try:
                    choice = int(input())
                except ValueError:
                    print("Invalid choice. Please enter 1 or 2.")

            if choice == 2:
                print("Thank you for playing!")
                break
            else:
                print("Next Question..!")

    print(f"You scored {marks} out of {len(quiz_questions)} questions.\n")

while True:
    quiz()
    play_again = input("Do you want to play again? (yes/no): ").lower()
    if play_again != 'yes':
        print("Thank you for playing. Goodbye!")
        break
```

```
Welcome to the English Grammar Quiz!
Test your knowledge of grammar with these questions.
Type the correct answers and see how many you get right!

Choose the correct form: 'She _____ (has/have) a new car.'? has
Correct!
To Continue press 1, To Exit press 2
1
Next Question..!
Identify the type of pronoun in the sentence: 'They gave her the award.' (Personal/Relative/Indefinite)? personal
The answer is 'indefinite', not 'personal'
To Continue press 1, To Exit press 2
2
Thank you for playing!
You scored 1 out of 10 questions.

Do you want to play again? (yes/no): no
Thank you for playing. Goodbye!
```

Thank you

```
In [ ]:
```