Chapter:	1
Unit:	1
Student Name:	Aman Dhaubanjar

1.

commands = ["Move Right", "Fill-In Square", "Move Right", "Move Down",

"Fill-In Square", "Move Left", "Move Left", "Fill-In Square",

"Move Down", "Move Right", "Fill-In Square", "Move Right"]

print("Sequence of Commands:")

for command in commands:

    print(command)

output:

Sequence of Commands:

Move Right

Fill-In Square

Move Right

Move Down

Fill-In Square

Move Left

Move Left

Fill-In Square

Move Down

Move Right

Fill-In Square

Move Right

2.

```
c = ["Move Right", "Move Left",

        "Move Up", "Move Down",

        "Fill-In Square"]

def fill_box(filled_box_index):

    for i in range(16):

        if i in filled_box_index:

            print(c[4])

        if (i!=15):

            if ((i+1)%4 ==0):

                print(c[3])

            elif (i<3 or (i>7 and i<11)):

                print(c[0])

            else:

                print(c[1])

#1

print("Image 1")

fill_box([1,2, 4, 7])

#2

print("Image 2")

fill_box([0, 5, 10, 15])
```

#3

print("Image 3")

fill_box([0, 4, 8, 9, 13])

#4

print("Image 4")

fill_box([1, 5, 6, 7, 11, 15])

#5

print("Image 5")

fill_box([3, 6, 9, 12])

#6

print("Image 6")

fill_box([1, 2, 5, 6, 9, 10, 13, 14])

Chapter:	1
Unit:	3
Student Name:	Aman Dhaubanjar

1.

result1 = int("50") + 50

result2 = str(50) + "50"

print("Result 1:", result1)

print("Result 2:", result2)

output:

Result 1: 100

Result 2: 5050

2.

```python
number = int("1" + "0" + "0" + "0")
print("Generated number:", number)
```

output:

Generated number: 1000

Chapter:	1
Unit:	4
Student Name:	Aman Dhaubanjar

1.

```python
width, height = 30, 60

area = width * height

print("Area of Rectangle:", area)
```

output:

Area of Rectangle: 1800

2.

```python
import math

base = int(input("Enter base: "))

height = int(input("Enter height: "))

hypotenuse = math.sqrt(base**2 + height**2)

print("Hypotenuse:", hypotenuse)
```

output:

Enter base: 3
Enter height: 4
Hypotenuse: 5.0

Chapter:	1
Unit:	5
Student Name:	Aman Dhaubanjar

1.

n = int(input("Enter an integer: "))

is_odd = n % 2 != 0

print("Is the integer odd?:", is_odd)

output:

Enter an integer: 5

Is the integer odd?: True

2.

n = int(input("Enter an integer: "))

is_even_in_range = 0 <= n <= 100 and n % 2 == 0

print("Is even and in range?:", is_even_in_range)

output:

Enter an integer: 6

Is even and in range?: True

Chapter:	1
Unit:	6

Student Name:	Aman Dhaubanjar

1.

```python
game_score = int(input("Enter game score: "))
if game_score > 1000:
    print("You are a master.")
```

output:

Enter game score: 1500

You are a master.

2.

```python
num = int(input("Enter integer:"))
if num>0:
    print("x=", num)
    print(num, "is a natural number")
else:
    print("x=", num)
```

output:

Enter integer: 6

x= 6

6 is a natural number

Chapter:	1
Unit:	7
Student Name:	Aman Dhaubanjar

1.

```
ch = (input("Enter the alphabet"))

if ch.lower() in ['a', 'e', 'i', 'o', 'u']:

    print(f"{ch} is a vowel")

else:

    print(f"{ch} is a consonant")
```

output:

Enter the alphabet b

b is a consonant

2.

```
n = input("Enter two integers:").split()
a = int(n[0])
b = int(n[1])
if a%b ==0:
    print(f"{a} is a multiple of {b}")
```

output:

Enter two integers: 4 2
4 is a multiple of 2

Chapter:	1
Unit:	8
Student Name:	Aman Dhaubanjar

1.

```
bts = ['V', 'J-Hope', 'RM', 'Jungkook', 'Jin', 'Jimin', 'Suga']

for member in bts:
```

```
    print(member)
```

output:

V

J-Hope

RM

Jungkook

Jin

Jimin

Suga

2.

```
print("Sum of integers from 1 to 100:", sum(range(1, 101)))
```

output:

Sum of integers from 1 to 100: 5050

3.

```
print("Sum of even numbers from 1 to 100:", sum(range(2, 101, 2)))
```

output:

Sum of even numbers from 1 to 100: 2550

4.

```
print("Sum of odd numbers from 1 to 100:", sum(range(1, 101, 2)))
```

output:

Sum of odd numbers from 1 to 100: 2500

Chapter:	1
Unit:	9

Student Name:	Aman Dhaubanjar

1.

```
for i in range(1, 10):

    print(f"2 * {i} = {2*i}")
```

output:

2 * 1 = 2

2 * 2 = 4

2 * 3 = 6

2 * 4 = 8

2 * 5 = 10

2 * 6 = 12

2 * 7 = 14

2 * 8 = 16

2 * 9 = 18

2.

```
n=1

while(n<=9):

    i=1

    while (i<=9):

        print(f"{n} * {i} = {n*i}")

        i+=1

    n+=1
```