In [2]:
```python
print("Enter the value of g (prime number)")
g=int(input())
print("Enter the value of p (prime number)")
p=int(input())
```

```
Enter the value of g (prime number)
5
Enter the value of p (prime number)
7
```

In [3]:
```python
print("Enter the value of a ")
a=int(input())
```

```
Enter the value of a
2
```

In [4]:
```python
A=(pow(g,a))%p
print("A=",A)
```

```
A= 4
```

In [5]:
```python
print("Enter the value of b")
b=int(input())
```

```
Enter the value of b
3
```

In [6]:
```python
B=(pow(g,b))%p
print("B=",B)
```

```
B= 6
```

In [7]:
```python
shared_key1=(pow(B,a))%p
shared_key2=(pow(A,b))%p
print("Shared Key 1=",shared_key1)
print("Shared Key 2=",shared_key2)
```

```
Shared Key 1= 1
Shared Key 2= 1
```

In [ ]: