3.Loops

1. Write a program to print "Bright IT Career" ten times using for loop
2. Write a java program to print 1 to 20 numbers using the while loop.
3. Program to equal operator and not equal operators
4. Write a program to print the **odd** and **even** numbers.
5. Write a program to print largest number among three numbers.
6. Write a program to print even number between 10 and 20 using while
7. Write a program to print 1 to 10 using the do-while loop statement.
8. Write a program to find Armstrong number or not
9. Write a program to find the prime or not.
10. Write a program to palindrome or not.
11. Program to check whether a number is EVEN or ODD using switch
12. Print gender (Male/Female) program according to given M/F using switch

main.py Shell

```
1  # 1st program...
2  for i in range(10):
3      print("Bright IT Career")
4
```


```
Bright IT Career
Bright IT Career
Bright IT Career
Bright IT Career
Bright IT Career
Bright IT Career
Bright IT Career
Bright IT Career
Bright IT Career
Bright IT Career
> 
```

Programiz

Online Java Compiler

Java Course

Main.java | Output

```
1  public class PrintNumbers {
2      public static void main(String[]
           args) {
3          int i = 1;
4          while (i <= 20) {
5              System.out.println(i);
6              i++;
7          }
8      }
9  }
10
```

Main.java | Output

```
java -cp /tmp/Dok8OucyPx PrintNumbers
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
```

main.py Shell

```
1  #3rd program...
2  a = 10
3  b = 11
4  print(a == b)
5  print(a != b)
6
```

```
False
True
> 
```

main.py | Shell

```python
# 4th program...
def print_odd_numbers():
    for i in range(1, 101):
        if i % 2 == 1:
            print(i)
def print_even_numbers():
    for i in range(2, 101, 2):
        print(i)
print_odd_numbers()
#even numbers
print_even_numbers()
```


main.py
Shell


```
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
```

main.py Shell

```
45
47
49
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
>
```

main.py Shell

```python
# 4th program...
def print_odd_numbers():
  for i in range(1, 50):
    if i % 2 == 1:
      print(i)
def print_even_numbers():
  for i in range(2, 50, 2):
    print(i)
print_odd_numbers()
#even numbers
print_even_numbers()
```

main.py Shell

```
Enter the first number: 10
Enter the second number: 4
Enter the third number: 6
The largest number is 10.0.
> 
```

main.py Shell

```
# 5th program...
def largest_number(num1, num2, num3):
    largest = num1
    if num2 > largest:
        largest = num2
    if num3 > largest:
        largest = num3
    print(f"The largest number is
        {largest}.")
def main():
    num1 = float(input("Enter the first
        number: "))
    num2 = float(input("Enter the second
        number: "))
    num3 = float(input("Enter the third
        number: "))
    largest_number(num1, num2, num3)
if __name__ == "__main__":
    main()
```

main.py Shell

```
Enter the first number: 10
Enter the second number: 4
Enter the third number: 6
The largest number is 10.0.
> 
```

main.py Shell

```python
# 6th program...
def print_even_numbers():
    i = 10
    while i <= 20:
        if i % 2 == 0:
            print(i)
        i += 1
if __name__ == "__main__":
    print_even_numbers()

```

main.py Shell

```
10
12
14
16
18
20
> 
```

```c

#include <stdio.h>

int main() {
    int i = 1;
    do {
        printf("%d\n", i);
        i++;
    } while (i <= 10);

    return 0;
}

```

main.c Output

```
/tmp/OHUBqTzpjg.o
1
2
3
4
5
6
7
8
9
10
```

main.py Shell

```python
# 8th program...
def is_armstrong_number(number):
    n = len(str(number))
    sum = 0
    for digit in str(number):
        sum += int(digit)**n
    return sum == number
if __name__ == "__main__":
    # ask the user for a number
    number = int(input("Enter a number: "
        ))
    if is_armstrong_number(number):
        print(number, "is an Armstrong
            number.")
    else:
        print(number, "is not an Armstrong
            number.")

```

main.py Shell

```
Enter a number: 9
9 is an Armstrong number.
> 
```

main.py Shell

```python
# 9th program...
def is_prime(number):
    if number <= 1:
        return False
    for i in range(2, int(number**0.5) +
        1):
        if number % i == 0:
            return False
    return True


if __name__ == "__main__":

    number = int(input("Enter a number: "
        ))
    if is_prime(number):
        print(number, "is a prime number.")
    else:
        print(number, "is not a prime
            number.")

```

main.py Shell

```
Enter a number: 11
11 is a prime number.
> 
```

main.py Shell

```python
# 10th program...
def is_palindrome(str):
    str_reversed = str[::-1]
    return str == str_reversed

def main():
    str = input("Enter a string: ")
    if is_palindrome(str):
        print(str, "is a palindrome.")
    else:
        print(str, "is not a palindrome.")

if __name__ == "__main__":
    main()
```

main.py Shell

```
Enter a string: 26
26 is not a palindrome.
> 
```

main.py Shell

```python
# 11th program...
def is_even(number):
    remainder = number % 2
    return remainder == 0

def main():
    number = int(input("Enter a number: "
        ))
    print("The number is", "even" if
        is_even(number) else "odd")

if __name__ == "__main__":
    main()
```

main.py

Shell

```
Enter a number: 10
The number is even
> 
```

main.py Shell

```python
# 12th program...
def get_gender(gender):
    if gender.upper() == "M":
        return "Male"
    elif gender.upper() == "F":
        return "Female"
    else:
        raise ValueError("Invalid gender")

def main():
    gender = input("Enter gender (M/F): "
        )
    print(get_gender(gender))

if __name__ == "__main__":
    main()
```

main.py Shell

```
Enter gender (M/F): M
Male
> 
```