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



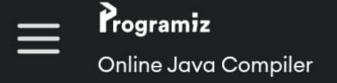
Shell



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



Bright IT Career





Main.java

Output

 \triangleright

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

java -cp /tmp/Dok8OucyPx PrintNumbers

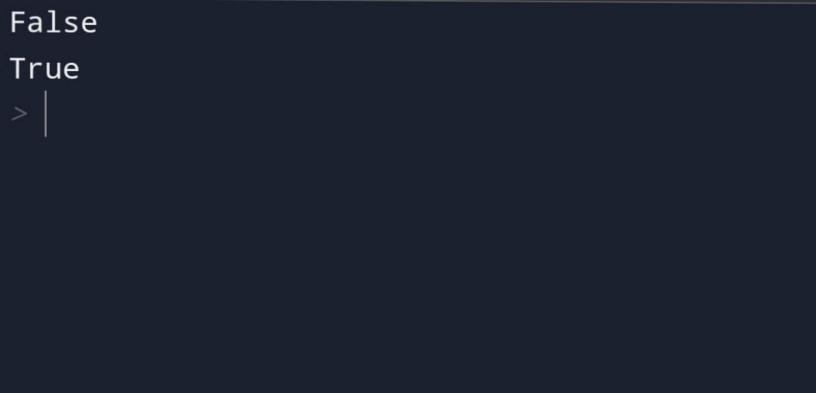
Shell



1 #3rd program...

main.py

- 2 a = 10
- 3 b = 11
- 4 print(a == b)
- 5 print(a != b)
 - 6





```
-<u>;</u>o;-
```

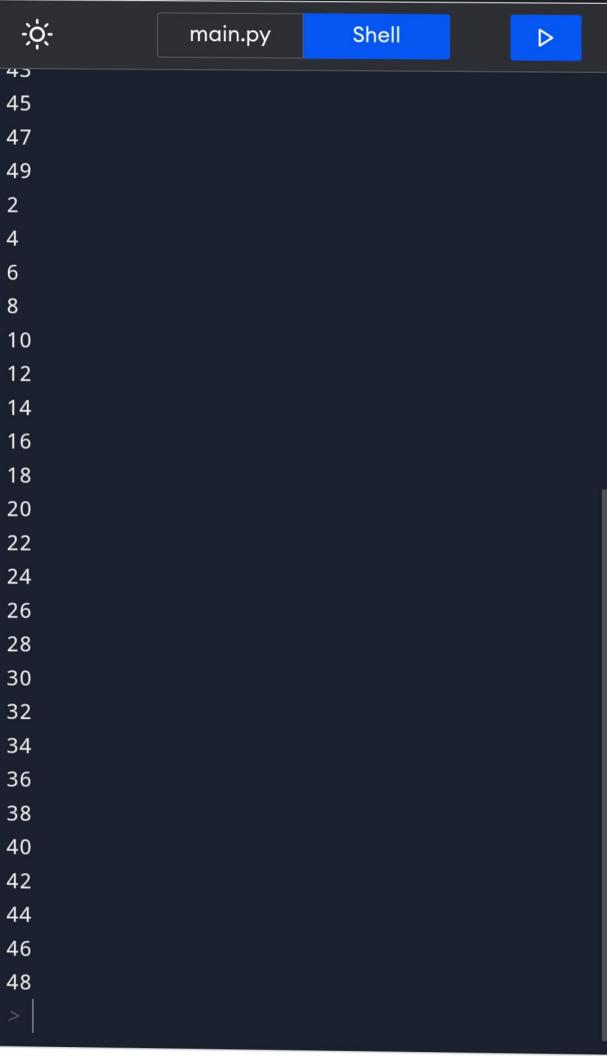
```
1 # 4th program...
2 def print_odd_numbers():
3 for i in range(1, 101):
4 if i % 2 == 1:
5
         print(i)
6 def print_even_numbers():
   for i in range(2, 101, 2):
       print(i)
8
9
   print_odd_numbers()
10 #even numbers
11
   print_even_numbers()
12
13
```



Shell



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```
1  # 4th program...
2 def print_odd_numbers():
3 for i in range(1, 50):
4 if i % 2 == 1:
         print(i)
5
6 def print_even_numbers():
7 for i in range(2, 50, 2):
       print(i)
8
   print_odd_numbers()
9
10 #even numbers
   print_even_numbers()
11
12
13
```



0

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
                                         \triangleright
   # 5th program...
 2 def largest_number(num1, num2, num3):
 3
      largest = num1
 4 if num2 > largest:
 5
        largest = num2
 6 if num3 > largest:
 7
        largest = num3
      print(f"The largest number is
 8
          {largest}.")
 9 def main():
10
      num1 = float(input("Enter the first
          number: "))
      num2 = float(input("Enter the second
11
          number: "))
      num3 = float(input("Enter the third
12
          number: "))
      largest_number(num1, num2, num3)
13
14 if __name__ == "__main__":
      main()
15
```

16



Shell



Enter the first number: 10

Enter the second number: 4

Enter the third number: 6
The largest number is 10.0.

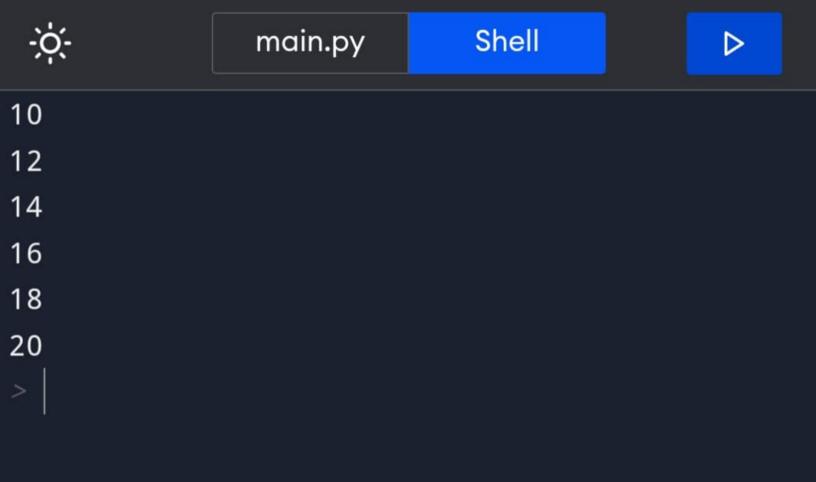
>

ne largest number is 10.0. |

Shell

```
1 # 6th program...
```

- 2 def print_even_numbers():
- i = 10
- 4 while i <= 20:
- 5 if i % 2 == 0:
- 6 print(i)
- i += 1
- 8 if __name__ == "__main__":
- 9 print_even_numbers()
- 10



```
1
    #include <stdio.h>
 3
4 int main() {
      int i = 1;
 5
 6
      do {
         printf("%d\n", i);
 8
         i++;
      } while (i <= 10);</pre>
 9
10
11
      return 0;
12
    }
13
```



main.c

Output



/tmp/OHUBqTzpjg.o



```
-<u>;</u>ċ;-
```

```
1
    # 8th program...
2 def is_armstrong_number(number):
3
      n = len(str(number))
4
      sum = 0
5 for digit in str(number):
6
        sum += int(digit)**n
7
      return sum == number
8
  - if __name__ == "__main__":
9
      # ask the user for a number
10
      number = int(input("Enter a number:
          ))
11 if is_armstrong_number(number):
12
        print(number, "is an Armstrong
            number.")
13
      else:
14
        print(number, "is not an Armstrong
            number.")
15
```



Shell



Enter a number: 9

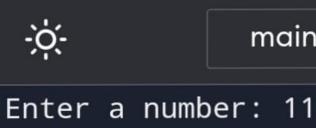
9 is an Armstrong number.







```
# 9th program...
2 def is_prime(number):
     if number <= 1:</pre>
3
       return False
4
for i in range(2, int(number**0.5) +
          1):
if number \% i == 0:
7
          return False
8
     return True
9
10
11 if __name__ == "__main__":
12
13
      number = int(input("Enter a number: "
          ))
   if is_prime(number):
14 -
15
       print(number, "is a prime number.")
16 else:
17
       print(number, "is not a prime
            number.")
18
```



Shell



11 is a prime number.





```
# 10th program...
  def is_palindrome(str):
3
      str_reversed = str[::-1]
4
      return str == str_reversed
5
6 def main():
      str = input("Enter a string: ")
8    if is_palindrome(str):
9
        print(str, "is a palindrome.")
10 else:
       print(str, "is not a palindrome.")
11
12
13 if __name__ == "__main__":
14
     main()
15
```



main.py Enter a string: 26

Shell



26 is not a palindrome.







```
# 11th program...
2 def is_even(number):
      remainder = number % 2
3
      return remainder == 0
4
5
6 def main():
      number = int(input("Enter a number:
          ))
      print("The number is", "even" if
8
          is_even(number) else "odd")
9
10 if __name__ == "__main__":
      main()
11
12
```



Shell



Enter a number: 10 The number is even





```
# 12th program...
2 def get_gender(gender):
     if gender.upper() == "M":
3
        return "Male"
4
5 elif gender.upper() == "F":
        return "Female"
6
7 else:
        raise ValueError("Invalid gender")
8
9
10 def main():
11
     gender = input("Enter gender (M/F): "
12
      print(get_gender(gender))
13
14 if __name__ == "__main__":
15
      main()
16
```



main.py Enter gender (M/F): M

Shell