Data Science - Lab 1

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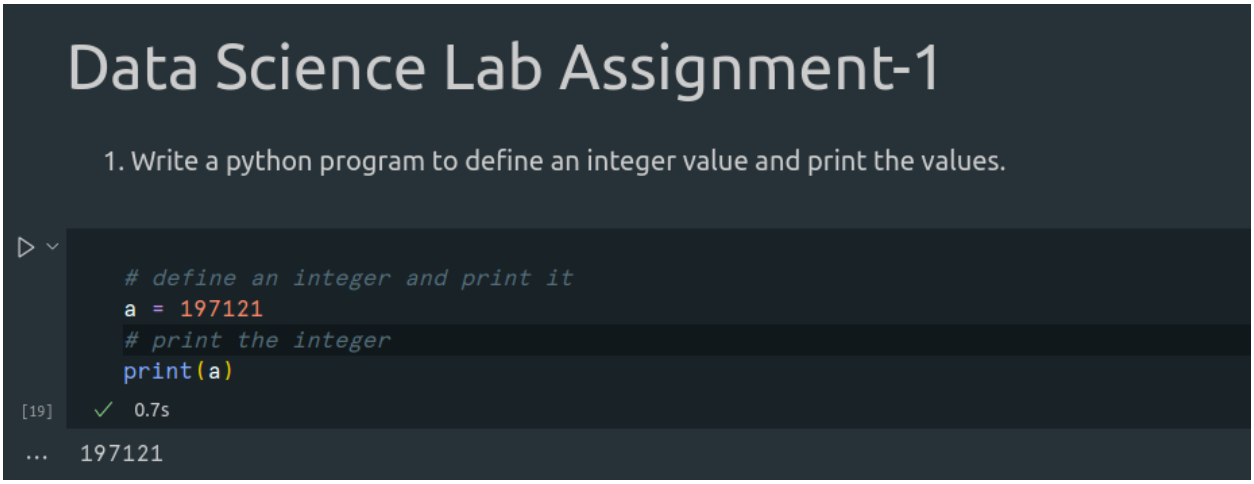
Roll no	197121
Section	A
Type	Assignment
Subject	DS Lab

1. Write a python program to define an integer value and print the values.

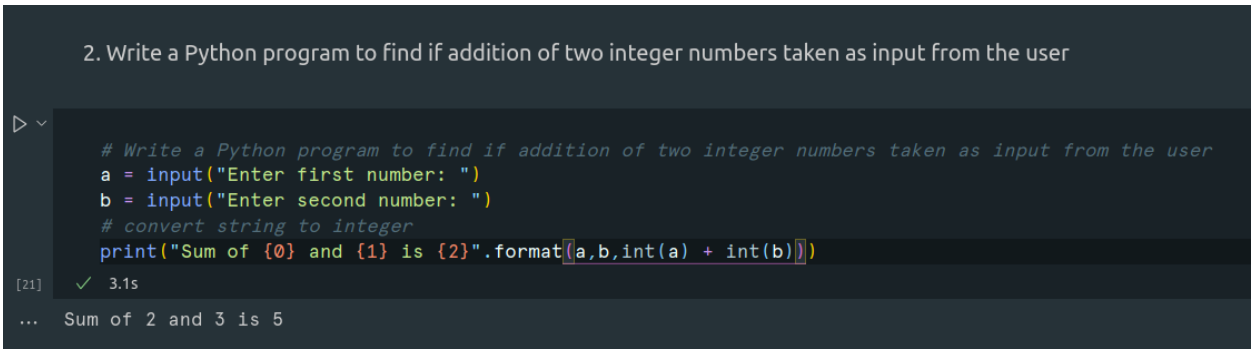
```
# define an integer and print it
a = 197121
# print the integer
print(a)
```



2. Write a Python program to find if addition of two integer numbers taken as input from the user

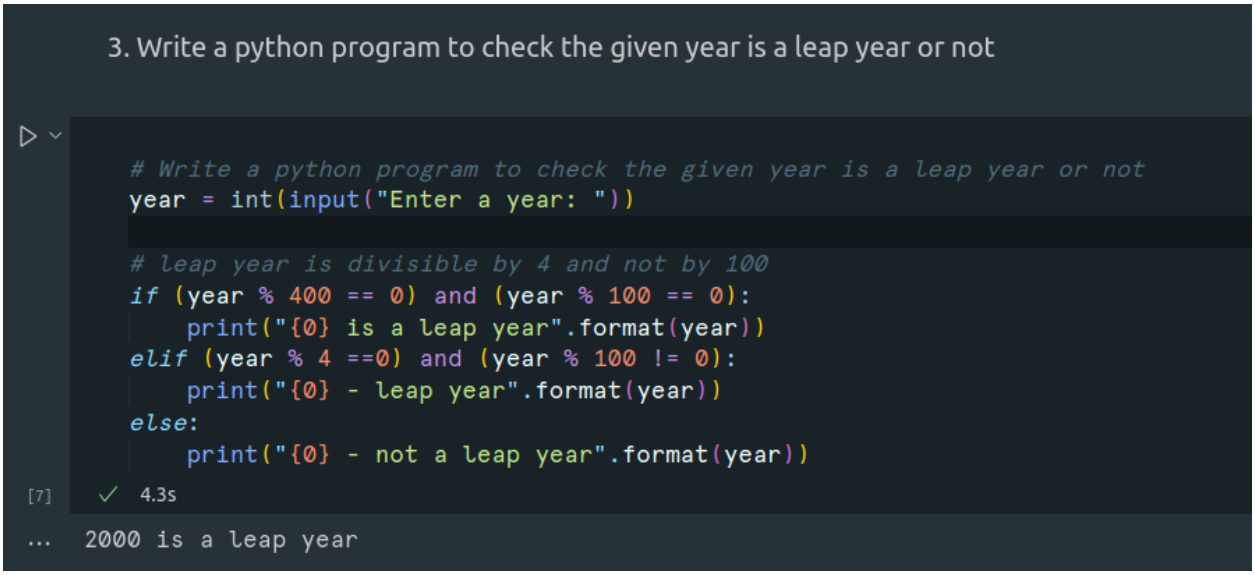
```
# Write a Python program to find if addition of two integer numbers taken as input from th
e user
```

```
a = input("Enter first number: ")
b = input("Enter second number: ")
# convert string to integer
print(int(a) + int(b))
```



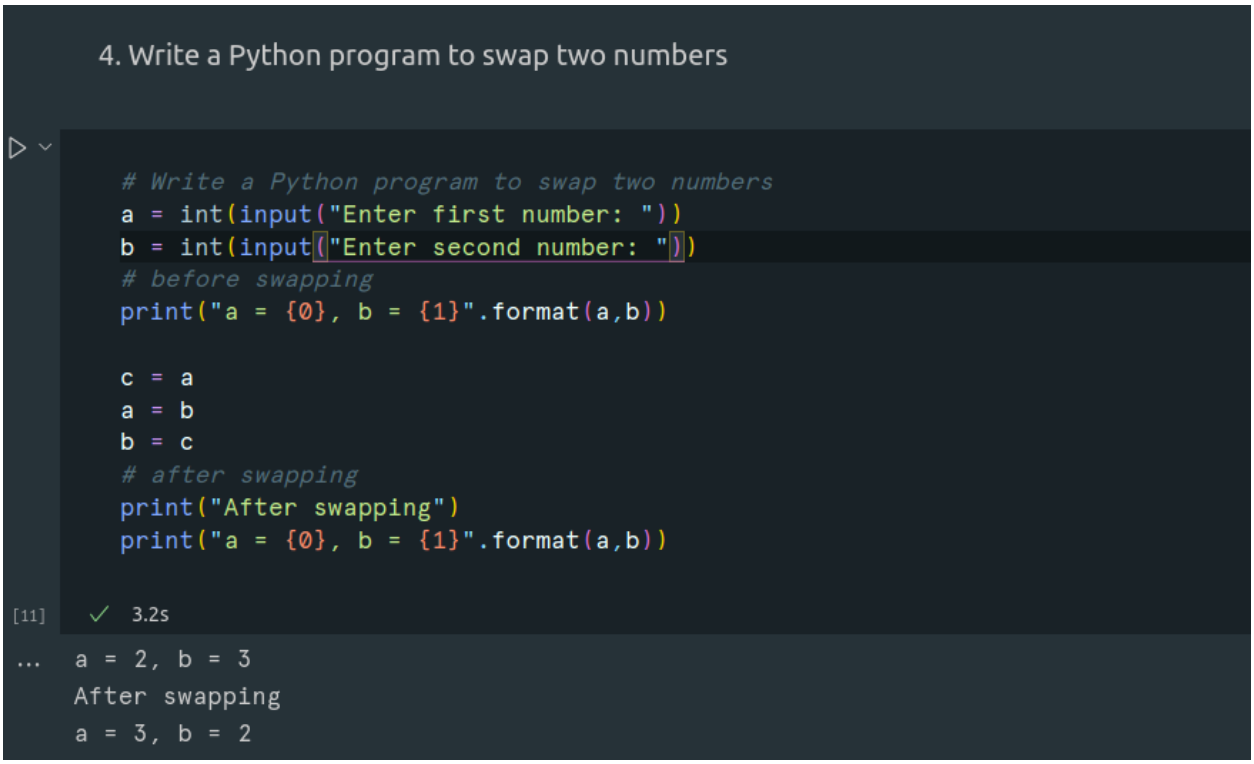
3. Write a python program to check the given year is a leap year or not

```
# Write a python program to check the given year is a leap year or not
year = int(input("Enter a year: "))

# leap year is divisible by 4 and not by 100
if (year % 400 == 0) and (year % 100 == 0):
    print("{0} is a leap year".format(year))
elif (year % 4 ==0) and (year % 100 != 0):
    print("{0} - leap year".format(year))
else:
    print("{0} - not a leap year".format(year))
```



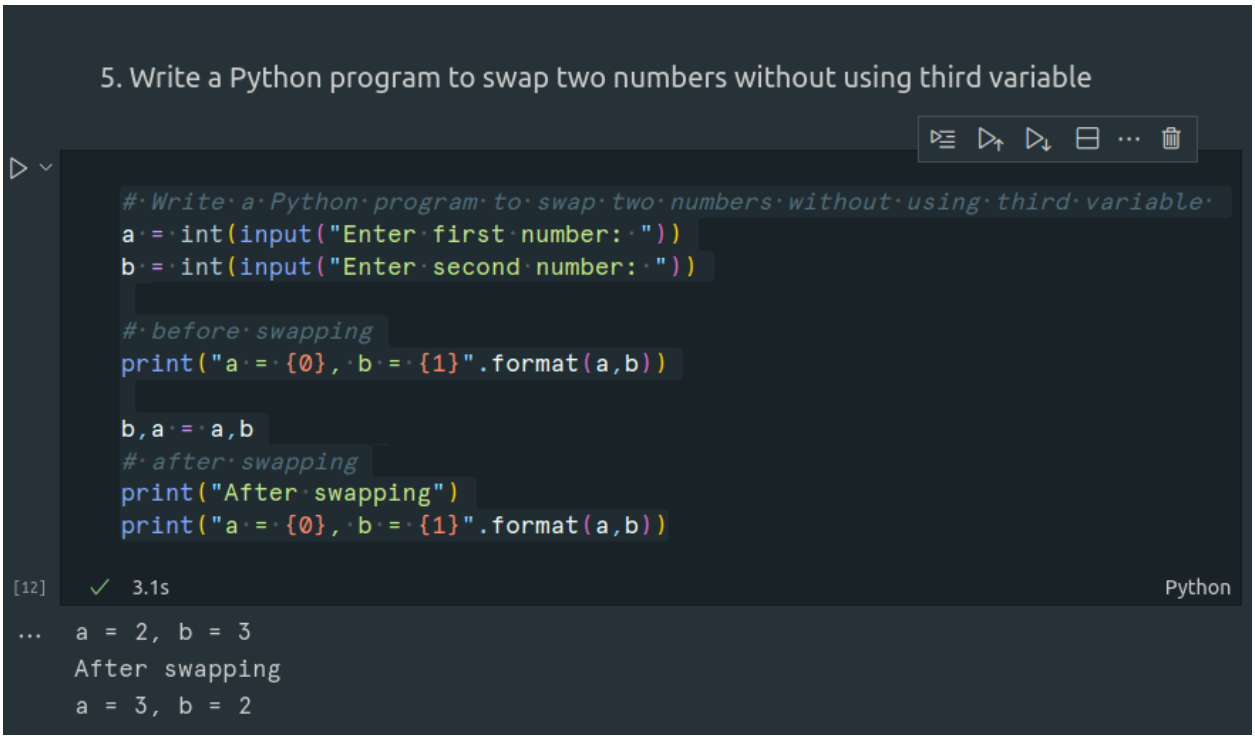
4. Write a Python program to swap two numbers

```
# Write a Python program to swap two numbers
a = int(input("Enter first number: "))
b = int(input("Enter second number: "))
# before swapping
print("a = {0}, b = {1}".format(a,b))

c = a
a = b
b = c
# after swapping
print("After swapping")
print("a = {0}, b = {1}".format(a,b))
```



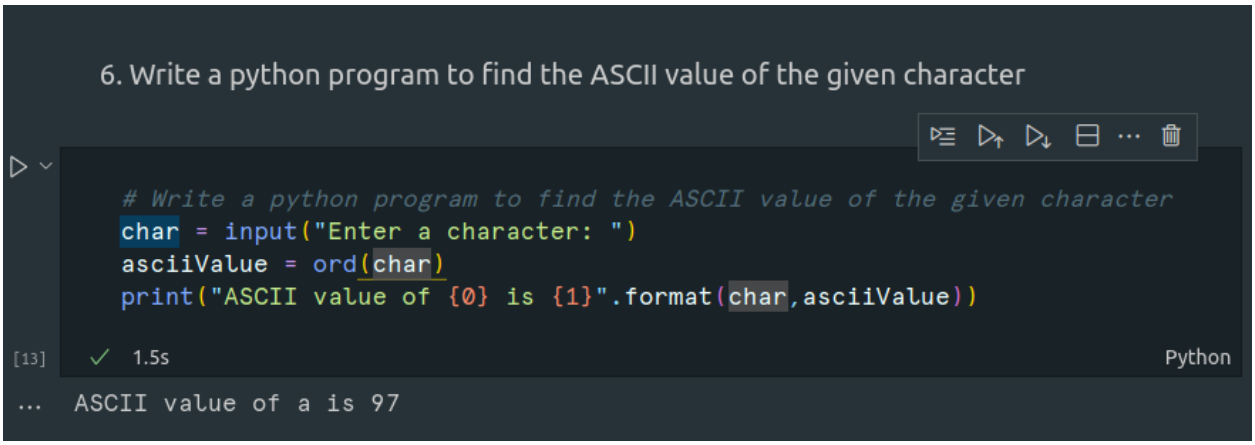
5. Write a Python program to swap two numbers without using third variable

```
# Write a Python program to swap two numbers without using third variable
a = int(input("Enter first number: "))
b = int(input("Enter second number: "))

# before swapping
print("a = {0}, b = {1}".format(a,b))

b,a = a,b
# after swapping
print("After swapping")
print("a = {0}, b = {1}".format(a,b))
```



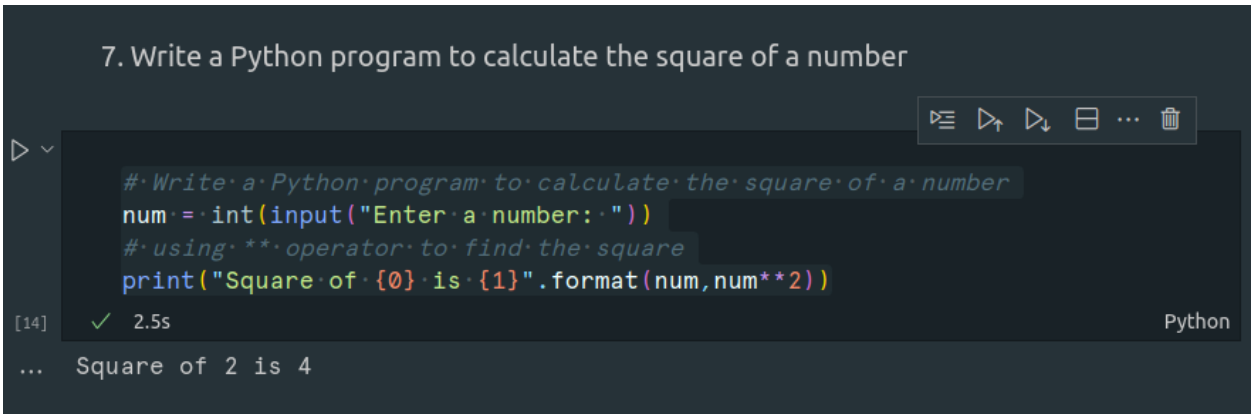
6. Write a python program to find the ASCII value of the given character

```
# Write a python program to find the ASCII value of the given character
char = input("Enter a character: ")
asciiValue = ord(char)
print("ASCII value of {0} is {1}".format(char,asciiValue))
```



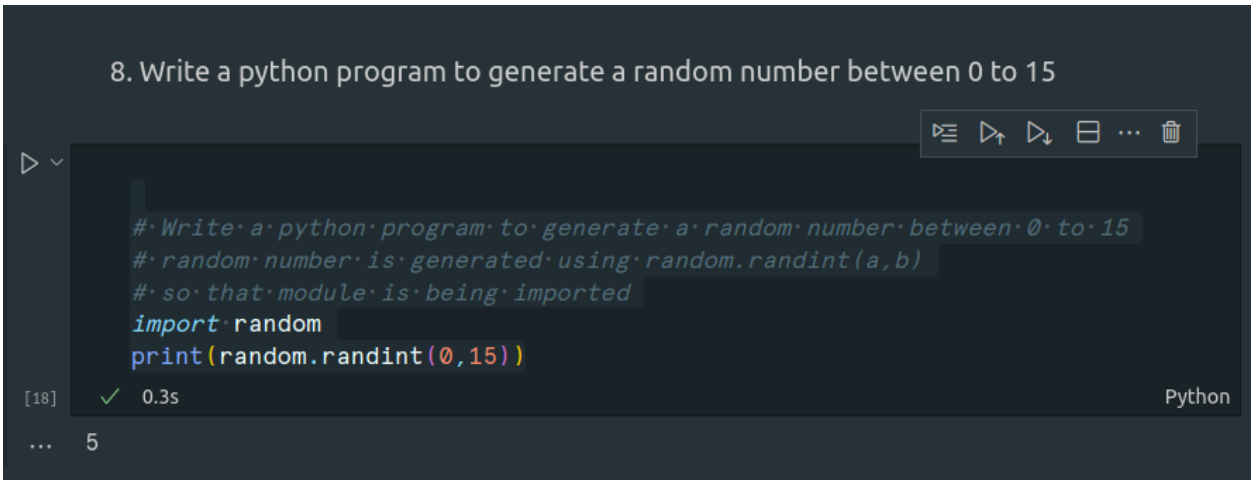
7. Write a Python program to calculate the square of a number

```
# Write a Python program to calculate the square of a number
num = int(input("Enter a number: "))
# using ** operator to find the square
print("Square of {0} is {1}".format(num,num**2))
```



8. Write a python program to generate a random number between 0 to 15

```
# Write a python program to generate a random number between 0 to 15
# random number is generated using random.randint(a,b)
# so that module is being imported
import random
print(random.randint(0,15))
```



9. Take a list of 10 numbers of your choice. Write a python program to print the following:

- Print all the elements after 5th index
- Print all the elements before 6th index
- Print all the elements between 2nd and 8th indices

```
# create a list
b = [1, 2, 3, 4, 5, 6, 7, 8 ,9, 10]
# print all elements after 5th index
print(b[5:])
# print all the elements before 6th index
print(b[:6])
# Print all the elements between 2nd and 8th indices
print(b[2:8])
```

9. Take a list of 10 numbers of your choice. Write a python program to print the following:

- Print all the elements after 5th index

```
# create a list
b = [1, 2, 3, 4, 5, 6, 7, 8 ,9, 10]
# print all elements after 5th index
print(b[5:])
```

22] ✓ 0.7s Python

```
... [6, 7, 8, 9, 10]
```

- Print all the elements before 6th index

```
# print all the elements before 6th index
print(b[:6])
```

2] ✓ 0.2s Python

```
... [1, 2, 3, 4, 5, 6]
```

- Print all the elements between 2nd and 8th indices

```
# Print all the elements between 2nd and 8th indices
print(b[2:8])
```

4] ✓ 0.3s Python

```
... [3, 4, 5, 6, 7, 8]
```

10. Write a Python program to find the area of the triangle

```
# Write a Python program to find the area of the triangle
base = int(input("Enter base: "))
height = int(input("Enter height: "))
# area = 1/2 * base * height
area = 0.5 * base * height
# print the area
print("Area of triangle is {0}".format(area))
```

10. Write a Python program to find the area of the triangle

```python
# Write a Python program to find the area of the triangle
base = int(input("Enter base: "))
height = int(input("Enter height: "))
# area = 1/2 * base * height
area = 0.5 * base * height
# print the area
print("Area of triangle is {0}".format(area))
```

[ ]

Python