



LAB REPORT # 2&3

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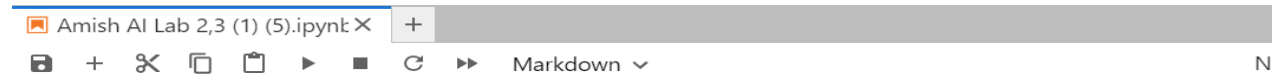
SUBJECT: PROGRAMMING OF AI

SECTION: AI BLUE F22

PROGRAM: (AI)

TASK:

1. Print at least 5 types of data type



LAB 2,3

TASK 1:

1. Print at least 5 types of data type

```
[14]: #integer example.
      #initionalizing the integer values.
      number_1=int(100)
      number_2=int(200)
      number_3=int(300)
      number_4=int(400)
      number_5=int(500)
      print(number_1, number_2, number_3, number_4, number_5)

      #displaying the integer data type.
      print(type(number_1),type(number_2),type(number_3),type(number_4), type(number_4))

      100 200 300 400 500
      <class 'int'> <class 'int'> <class 'int'> <class 'int'> <class 'int'>
```

```
[13]: #float example.
      abc=112.2
      efg=232.4
      hij=152.2
      klm=182.5
      nop=192.3

      #displaying the float datatype.
      print(abc, type(abc), efg, type(efg), hij, type(hij), klm, type(klm), nop, type(nop))

      112.2 <class 'float'> 232.4 <class 'float'> 152.2 <class 'float'> 182.5 <class 'float'> 192.3 <class 'float'>
```

```
[11]: # complex example
      a= 5j
      b= 6j
      c= 7j
      d= 8j
      e= 9j

      #displaying the float datatype.
      print(a, type(a))
      print(b, type(b))
      print(c, type(c))
      print(d, type(d))
      print(e, type(e))

      5j <class 'complex'>
      6j <class 'complex'>
      7j <class 'complex'>
      8j <class 'complex'>
      9j <class 'complex'>
```

2. Write example of type conversion for each (minimum 3)

```
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[19]: # example of type conversion
      #initializing the tadatypes.
      amish= 5 #integer
      nohman= 9.5 #float
      spark= 7j #complex

      #converting the data type.
      a=float(amish)
      b=int(nohman)
      c=complex(spark)

      #printing
      print(a)
      print(b)
      print(c)

      #displaying the converted data type.
      print(type(a))
      print(type(b))
      print(type(c))

      5.0
      9
      7j
      <class 'float'>
      <class 'int'>
      <class 'complex'>
```

```
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[20]: #Assign multiple strings to single variable
      a="""
      name= Amish
      reg no= B22F1253AI092
      program= AI
      """
      print(a)

      name= Amish
      reg no= B22F1253AI092
      program= AI
```

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4. Write Your country name and access the last 3 characters

```
[22]: #assigning the country name to variable  
abc= "pakistan"
```

```
#access the last 3 characters.  
last_three_chars=abc[-3:]  
print(abc)  
print(last_three_chars)
```

```
pakistan  
tan
```

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5. Write code and observe using len() function it count space or not.

```
[23]: #assigning string to variable  
spark="kya baat hai"  
  
# observe using len() function and printing  
print(len(spark))
```

```
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```

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6. Write code to access the 2nd and 3rd character of your name using negative indexes.

```
[25]: #initionalizing name  
name="AMISH"  
  
#access the 2nd and 3rd character  
second_char= name[-2]  
third_char= name[-3]  
print(second_char, third_char)
```

```
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Notebook [↗](#) Python (Pyodide)

7. Write python code in which you pass index number to format() function and arguments must be 4 and same code without indexes.

```
[2]: index_format_str = "The {0} arguments are: {1}, {2}, {3}, and {4}"

# Arguments to pass
arg_1 = "first"
arg_2 = "second"
arg_3 = "third"
arg_4 = "fourth"

# Passing arguments with specifying index numbers
formatted_str_indexed = index_format_str.format("index", arg_1, arg_2, arg_3, arg_4)

print("Indexed format:", formatted_str_indexed)
```

Indexed format: The index arguments are: first, second, third, and fourth

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8. Take input from user and than display it like "John age is: age"

```
[27]: # Using indexed format function
index_format_str = "The {0} arguments are: {1}, {2}, {3}, and {4}"

# Arguments to pass
arg_1 = "first"
arg_2 = "second"
arg_3 = "third"
arg_4 = "fourth"

# Passing index numbers to format function
formatted_str_indexed = index_format_str.format(4, arg_1, arg_2, arg_3, arg_4)

print("Indexed format:", formatted_str_indexed)
```

Indexed format: The 4 arguments are: first, second, third, and fourth