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Section: "A"

Lab Assignment: 02

Subject: Artificial Intelligence

Program: BS-IT

Task 02: Make 2 programs of each data type.

1.   Data Type Integer

Program 01:

Code :

```
a = 5
b = 10
result = a + b
print("The sum of", a, "and", b, "is", result)
```

Result:

```
The sum of 5 and 10 is 15
```

Program 02:

Code :

```
number = 7
if number % 2 == 0:
    print(number, "is even.")
else:
    print(number, "is odd.")
```

Result

```
7 is odd.
```

2.   Data Type Float

Program 01:

Code:

```
x = 3.5
y = 2.0
product = x * y
print("The product of", x, "and", y, "is", product)
```

Result

```
The product of 3.5 and 2.0 is 7.0
```

<h1 style="text-align: center;">Program 02:</h1>

Code:

```python
radius = 4.5
area = 3.14 * radius ** 2
print("The area of the circle with radius", radius, "is", area)
```

Result:

```
The area of the circle with radius 4.5 is 63.585
```

3.   Data Type String

<h1 style="text-align: center;">Program 01:</h1>

Code:

```python
first_name = "Junaid"
last_name = "Ahmed"
full_name = first_name + " " + last_name
print("Full name:", full_name)
```

Result:

```
Full name: Junaid Ahmed
```

Program 02:

Code:

```python
message = "Hello, world!"
length = len(message)
print("The length of the message is", length)
```

Result:

```
The length of the message is 13
```

4.   Data Type List

Program 01:

Code :

```python
numbers = [1, 2, 3]
maximum = max(numbers)
print("Maximum numbers in the list: ", maximum)
```

Result:

```
Maximum numbers in the list:  3
```

Program 02:

Code :

```
numbers = [1, 2, 3]
total = sum(numbers)
print("Sum of list elements: ", total)
```

Result:

```
Sum of list elements:  6
```

5.   Data Type Booleans

Program 01:

Code :

```
a=1
b=2
sum=a+b
if sum==3:
    check=True
else:
    check=False

print("value: ",check)
```

Result:

```
value:  True
```

Program 02:

Code :

```python
name = "junaid"
if name=="junaid":
    check=True
else:
    check=False

print("value: ",check)
```

Result:

```
value:  True
```