



**Bahria University, Islamabad**

**Department of Software Engineering**

**Artificial Intelligence Lab**

**(Fall-2021)**

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**Enrollment : 01-131182-021**

**Lab Journal: 5**

**Date: 10-11-2021**

Task No:	Task Wise Marks		Documentation Marks		Total Marks (20)
	Assigned	Obtained	Assigned	Obtained	
1	7		5		
2	8				

**Comments:**

**Signature**

## **Lab No: 5**

### **IMPLEMENTING LAMBDA EXPRESSIONS AND GENERATOR FUNCTIONS**

#### **Introduction**

- A lambda function is a small anonymous function. A lambda function can take any number of arguments but can only have one expression.
- Lambda functions are used when you need a function for a short period of time. This is commonly used when you want to pass a function as an argument to higher-order functions, that is, functions that take other functions as their arguments.

#### **OBJECTIVE:**

- Introduce the basics of python.
- Code in python.
- Implement the Lamda Function in Python

#### **Tools Used**

Tool used to perform this task is **PyCharm Community Edition**

## Task 1: Implement a lambda expression to calculate square of given number.

### Code

```
main.py x
1 print("Lambda Square Function")
2 r=float(input("Enter the number to find square: "))
3 # Lambda function to calculate square of a number
4 square = lambda x: x ** 2
5 print(f"The square of given nyumber is {square(r)}")
6
```

### Screenshot

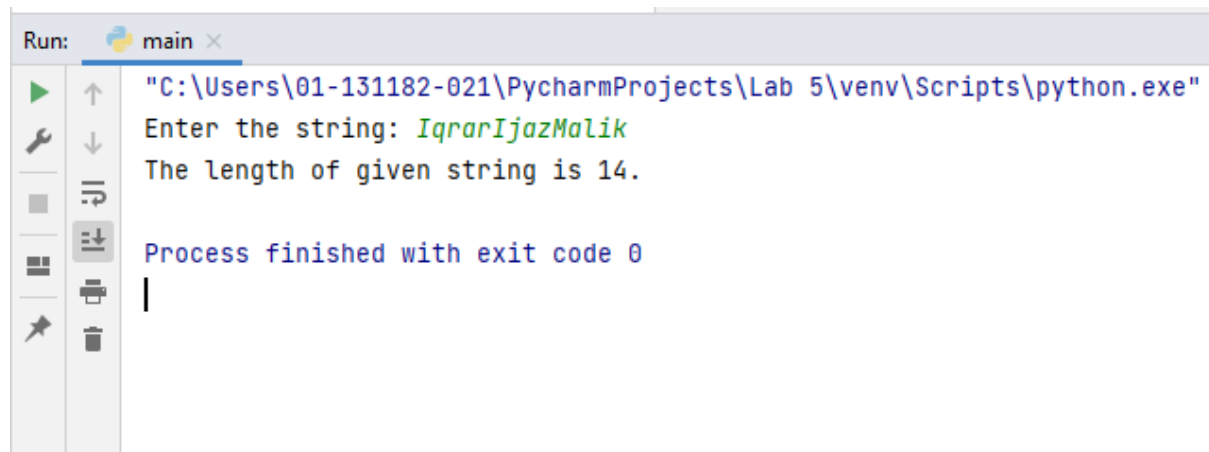
```
Run: main x
"C:\Users\01-131182-021\PycharmProjects\Lab 5\venv\Scripts\python.exe" "C:/User
Lambda Square Function
Enter the number to find square: 91
The square of given nyumber is 8281.0
Process finished with exit code 0
|
```

## Task 2: Implement a lambda expression to calculate square of given number.

Code:

```
6
7
8 value=(input("Enter the string: "))
9 # Lambda function to calculate square of a number
10 length = lambda x: len(x)
11 print(f"The length of given string is {length(value)}.")
```

Output:



```
Run: main x
"C:\Users\01-131182-021\PycharmProjects\Lab 5\venv\Scripts\python.exe"
Enter the string: IqrarIjazMalik
The length of given string is 14.
Process finished with exit code 0
```

## Conclusion

I completed the tasks given to us and pasted the output above.