# Assignment_02

April 9, 2021

# 1 Assignment 02: Perform CDF and PDF

*The comments/sections provided are your cues to perform the assignment. You don't need to limit yourself to the number of rows/cells provided. You can add additional rows in each section to add more lines of code.*

*If at any point in time you need help on solving this assignment, view our demo video to understand the different steps of the code.*

**Happy coding!**

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```
[ ]: """Perform CDF and PDF using Scipy

     DESCRIPTION

     Problem:

     Use SciPy to declare 20 random values for random values and perform the␣
      ↪following:

     1. CDF - Cumulative Distribution Function for a random variable 10

     2. PDF - Probability Density Function for a random variable 14."""
```

**1: Import required library**

```
[1]: #importing norm from scipy.stats for normal distribution
     from scipy.stats import norm
     #creating Random Variables
     norm.rvs(loc=0,scale=1,size=20)
```

```
[1]: array([-0.89635134,  0.47952348,  1.08893361,  1.51720562, -0.10306936,
             0.80409566,  1.38814394,  1.16036486,  0.85383647, -0.27097295,
            -0.79994655, -0.41627877, -0.50270829,  0.03863493,  0.1921456 ,
            -0.15592108, -0.3622249 , -0.2676438 ,  0.78463762,  0.92451046])
```

**2: Perfrom Cumulative Distribution Function or CDF on variables, with loc 1 and scale 3**

```
[2]:   #Performing CDF for a random value 10, with loc 1 and scale 3
       norm.cdf(10,loc=1,scale=3)
```

[2]: 0.9986501019683699

### 3: Perfrom Probability Density Function or PDF on variables, with loc 1 and scale 1

```
[10]:  #Performing PDF for a random value 14, with loc 1 and scale 1
       norm.pdf(14,loc=1,scale=1)
```

[10]: 7.998827757006813e-38

```
[ ]:
```