

# Assignment 1

## Introduction

**BAM-1043-01 Assignment**

**C#: c0932089\_Assignment1**

**Name: Prabesh Rai**

**Date: January 26, 2024**

### 1. Create a directory by your first & last name.

```
Launcher x itv000003@g02:~/pRai x
[itv000003@g02 ~]$ ls
Aaron      akhan      APraj      ashrestha  Bhaskar    emmanuelamoah  harshiljogi  kchithakindi  Manish      msingh      pavan      ppoudel      rsharma      sohamraval  sveliangiri  ya
tharth
adarshgautam  anamika_paramal  arora      Basil      bhumi      hamrinkaur    Jose      manish      MichaelAJeboriogbon  nraswant  pkhurana  product  Skonka  sveeramalla  Untitled Folder
[itv000003@g02 ~]$ mkdir pRai
[itv000003@g02 ~]$ ls
Aaron      akhan      APraj      ashrestha  Bhaskar    emmanuelamoah  hamrinkaur    kchithakindi  MichaelAJeboriogbon  pavan      product  rsharma      sveeramalla  yatharth
adarshgautam  APraj      Basil      bhumi      harshiljogi  manish      msingh      nraswant      pkhurana      ppoudel      rBhatia  sohamraval  Untitled Folder
[itv000003@g02 ~]$ cd pRai
[itv000003@g02 pRai]$ vi hello.py
[itv000003@g02 pRai]$
```

### 2. Open vim

- Write a Python file and save it with .py extension
- Execute your Python code.

```
Launcher x itv000003@g02:~/pRai x
[itv000003@g02 pRai]$ vi hello.py
[itv000003@g02 pRai]$ python hello.py
Hello world!
Hi I am Prabesh Rai
[itv000003@g02 pRai]$ ls
hello.py
```

### 3. Navigate the Hadoop directory using \$hdfs fs or \$shadoop dfs command.

```

[itv000003@g02 pRai]$ hdfs dfs -ls
Found 8 items
drwxr-xr-x - itv000003 supergroup 0 2024-01-22 11:08 .sparkStaging
drwxr-xr-x - itv000003 supergroup 0 2024-01-25 21:36 akhan
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 15:04 harshiljogi
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 15:01 kchithakindi
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 14:56 msingh_hadoop
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 14:55 pavan_hadoop
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 15:04 sohamraval
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 14:58 svelliangiri
[itv000003@g02 pRai]$

```

#### 4. Check for the file permissions.

```

[itv000003@g02 pRai]$ hdfs dfs -ls
Found 8 items
drwxr-xr-x - itv000003 supergroup 0 2024-01-22 11:08 .sparkStaging
drwxr-xr-x - itv000003 supergroup 0 2024-01-25 21:36 akhan
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 15:04 harshiljogi
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 15:01 kchithakindi
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 14:56 msingh_hadoop
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 14:55 pavan_hadoop
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 15:04 sohamraval
drwxr-xr-x - itv000003 supergroup 0 2024-01-26 14:58 svelliangiri
[itv000003@g02 pRai]$

```

#### 5. Suppose there is file of size 514 MB stored in HDFS (Hadoop 2.x) using default block size configuration and default replication factor:

a. How many blocks will be created in total?

Ans: 5 blocks will be created.

b. What will be the size of each block?

Ans: 4 blocks of 1\*128 MB and 1 block of 1\*2 MB