**STEPS FOR EXECUTION**

1. **Turn on VMware WorkStation Player**
   * Select the Cloudera virtual machine
   * Click on Play Virtual Machine
2. **Working with Eclipse**
   * Create a new ‘Java Project’ in eclipse IDE (Say ‘HIV’)
   * Click Next
   * Click on Finish
3. **Adding JAR Files to VMware**
   * Right Click on Project
   * Click on build path 🡪 Configure Build Path
   * Drag and Drop Client Jars
   * Add External Jars,
     1. Select Desktop
     2. Select Client Jars
     3. Select ok
     4. Ctrl + a (Select All)
     5. Select OK (All the jar files are added)
     6. Click ok
4. **Executing a program in VMware**
   * Drag and Drop HIV\_CSV.csv file into Cloudera
   * Open Terminal and check if file is present or not in the desktop
     1. $ ls
     2. $ cd Desktop
     3. $ ls
   * Move the HIV\_CSV.csv to Hadoop
     1. $ hadoop fs -copyFromLocal HIV\_CSV.csv /tmp
   * Check for file in Hadoop
     1. $ Hadoop fs -ls /tmp
5. **Create Class**
   * Right click on project
   * Select class
   * Give some package name
   * Select public static void main
   * Click Finish
6. **Write the Homomorphic Encryption Program**
7. **Create Jar file to run Hadoop file**
   * Right click on project 🡪 select export
   * Click on java 🡪 select jar files
   * Click Next 🡪 give name to jar file and browse it to desktop
   * Click on Next 🡪 Next
   * Press browse for main class and add the class
   * Click ok
8. **To compile Hadoop file**
   * **Syntax:** $ hadoop jar [name of jar folder created] [package name.classname] [input file] [output file]
   * **EX:** $ hadoop jar hiv.jar HIV.HEMR /tmp/HIV\_CSV.csv HIV\_OP.csv
9. **To Confirm**
   * $ hadoop fs -ls
10. **To display output**
    * $ hadoop fs -cat HIV\_OP.csv/part-\*
11. **Copy the output file to Local**
    * $ hadoop fs -copyToLocal HIV\_OP.csv
12. **Copy the csv file into your local device**
    * Copy the hadoop local file ctrl + a 🡪 ctrl + c
    * create a new file as HIV\_OP.csv on local device
    * paste the data ctrl + v on local device.