Project checkpoint- 1

Terminal application:

Source code (myapp.py)

import os

def display\_title\_bar():

    os.system('clear')

    print("\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

    print("\t\*\*\*  Greeter - Hello! Pick an application  \*\*\*")

    print("\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

def get\_user\_choice():

    print("\n[1] Apache Hadoop")

    print("\n[2] Apache Spark")

    print("\n[3] Jupyter Notebook")

    print("\n[4] SonarQube and SonarScanner")

    print("[q] Quit.")

    return input("What is your choice? ")

def for\_choice1():

    print("\n Apache Hadoop - functionality will be added \n")

def for\_choice2():

    print("\n Apache Spark - functionality will be added \n")

def for\_choice3():

    print("\n Jupyter Notebook - functionality will be added \n")

def for\_choice4():

    print("\n SonarQube and SonarScanner - functionality will be added \n")

### MAIN PROGRAM ###

choice = ''

display\_title\_bar()

while choice != 'q':

    choice = get\_user\_choice()

    # Respond to the user's choice.

    display\_title\_bar()

    if choice == '1':

        for\_choice1()

    elif choice == '2':

        for\_choice2()

    elif choice == '3':

        for\_choice3()

    elif choice == '4':

        for\_choice4()

    elif choice == 'q':

        print("\nThank you. Bye.")

    else:

        print("\n I didn't understand that choice. \n")

Dockerfile:

FROM python:latest

COPY . /usr/src/myapp

WORKDIR /usr/src/myapp

CMD ["python","myapp.py"]

Docker repositories:

Terminal app: <https://hub.docker.com/repository/docker/vkalaiaz/terminalapp>

Jupyter Notebook : <https://hub.docker.com/r/jupyter/all-spark-notebook>

Apache Spark: <https://hub.docker.com/r/bitnami/spark/>

Apache Hadoop: Master node - <https://hub.docker.com/r/bde2020/hadoop-namenode>

Data node - <https://hub.docker.com/r/bde2020/hadoop-datanode>