STUDENT INFO

Name: Tamzid Ibrahim

ID: u3265713

Unit: Data Science Technology and Systems (11523)

LINK TO THE TABLEAU DASHBOARD:

The link is given below:

https://public.tableau.com/views/DSTS_Assignment_1/Dashboard2?:language=en-GB&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

RESULTS OF THE REGRESSION AND CLASSIFICATION

RESULTS FOR THE REGRESSION MODELS

Model Name	Mean Square Error
Regression Model 1 (linear regression)	0.1323876442737592
Regression Model 2 (SGD Regressor)	1.4281444829959446e+22
Regression Model 2 with scaled data (SGD Regressor with Scaled Data)	0.13287898284637378

RESULTS FOR THE CLASSIFICATION MODELS

Model Name	Accuracy
Logistic Classifier	0.844755774327906
KNN Classifier	0.8848920863309353
Decision Tree Classifier	0.9121544869367664
Random Fores	0.8928436198409694

LIST OF COMMANDS TO CREATE AND PUSH THE DOCKER IMAGE TO THE DOCKER HUB

Step 1: Building the Docker Image

docker build -t dsts-assn-1 .

Explanation of the code:

This code tells docker to build an image, the image is tagged as dsts-assn-1

Step 2: Listing Docker Images

docker images

Explanation of the code:

The command lists all the docker images, including repository name, tag and image ID, creation date and size.

3. Tagging the Docker image

The image is tagged so it can be pushed to Docker Hub under the repository

docker tag 2df631e5c771 thebigtmz/dsts-assn-1

Explanation of the code:

Tags the image with the new name

4. Logging into Docker Hub

docker login

Explanation of the code:

This command logs users into docker hub

5. Pushing the Image to Docker Hub

Docker push thebigtmz/dsts-assn-1

Explanation of the code:

Uploads the image to Docker Hub

DOCKER LINK:-

https://hub.docker.com/r/thebigtmz/dsts-assn-1

DEPLOYMENT OF SOURCE CODE TO GITHUB REPOSITORY

To deploy my source code to the GitHub repository, I followed a series of steps using Git commands. Below is the list of commands I used to accomplish the deployment:

1. **Initializing the Git Repository**
   I began by initializing a new Git repository within the project folder by running the command git init. This command sets up a .git directory in the project folder, allowing Git to track changes in the files.

2. **Adding Files to the Staging Area**
   After initializing the repository, I added all relevant project files to the Git staging area by executing git add .. This command stages all files within the directory, preparing them for the initial commit.

3. **Making the Initial Commit**
   Once the files were staged, I created the first commit with a descriptive message using the command git commit -m "Initial commit". This commits the staged files to the local repository with the message "Initial commit", saving the current state of the project.

4. **Adding the Remote Repository**
   To link my local repository with the GitHub repository, I added the remote repository using git remote add origin https://github.com/TheBigTMZ/dsts-assn-1.git. This command adds the GitHub repository as the remote origin, enabling me to push changes to it.

5. **Pushing the Code to GitHub**
   Finally, I pushed the committed changes to the main branch of my GitHub repository using the command git push -u origin main. The -u option sets the upstream tracking for the main branch, so future changes can be easily pushed or pulled.

Git hub link:

https://github.com/TheBigTMZ/dsts-assn-1.git