# **Student Info**

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# **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