Data Science Technology and Systems PG (11523)
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A PDF document with the following:

Link to the Tableau Dashboard
- Tableau Dashboard:
  https://public.tableau.com/app/profile/rohit.baral/viz/tableau_part/Dashboard1

a.The results of the (regression and classification) trained models on the test data. These results must be listed in two tables: one for the regression and another for the classification.

1. Regression Model:

Regression Models	MSE	RMSE	R-squared
Linear Regression Model 1	0.0877	0.2963	0.2144
Linear Model 2 (SGD)	0.1157	0.3401	0.4866

2. Classification Model:
Confusion Matrix: (Class 0 vs Class 1)

Classification Models	True Positive	True Negative	False Positive	False Negative
Decision Tree	826	373	119	117
Random Forest	835	397	108	95
KNN	846	335	97	157
Logistic Regression	876	329	67	163

Classification Report:

Classification Models	Accuracy	Class	Precision	Recall	F1 - score
Logistic Regressor	84%	Class 0	84%	93%	88%
		Class 1	83%	67%	74%
Random Forest	85%	Class 0	89%	88%	89%
		Class 1	78%	80%	79%
Decision Tree	83%	Class 0	87%	87%	87%
		Class 1	76%	75%	75%
KNN	88%	Class 0	84%	89%	86%
		Class 1	77%	68%	72%

b. **The list of commands you have used to deploy your source code to the GitHubrepository.**

1. *Initializing the Git:*
   git init

2. *Check the Status:*
   Git status

3. *Staging:*
   git add .

4. *Committing Git:*
   git commit -m "Assignment Complete Notebook"

5. *Setting Up Remote repository and Pushing to Git hub:*
   git remote add origin
   https://github.com/baralrohit/DSTS_sem3/tree/main/assignment_1
   git branch -M main
   git push -u origin main

c.The list of commands you have used to create and push the Docker image to the Docker Hub.

1. *Building the Docker Image:*

   docker build -t r99baral/dsts-model:latest .

2. *Running the Docker Container:*

   docker run r99baral/dsts-model:latest

3. *Tagging the Docker Image:*

   docker tag r99baral/dsts-model:latest

4. *Docker Hib Login:*

   docker login -u r99baral

5. *Pushing the Image to Docker Hub:*

   docker push r99baral/dsts-model:latest

d. The Link of the source code you have deployed on GitHub (please add me as acollaborator; my GitHub account is <u>radwanebrahim@gmail.com</u>)

https://github.com/baralrohit/DSTA_ASSIGNMENT1.git

e. The link to the Docker image you deployed on the Docker Hub.

docker pull r99baral/dsts-model