Criteria	weight	Failed (0)	Passed (50)	Good (70)	Excellent (100)
Project 1 (a) **Data loading, visualisation, and cleaning**	7%	Not attempted or incomplete	Data read in but needed some minor modification. Visualisation was illustrated. Some columns were removed. Data cleaning with some basic description was shown in the code.	Data read in successfully. Visualisation was illustrated. Columns to be removed were described. Data cleaning with some basic description was shown in the code. Code ran successfully.	Data read in successfully. Visualisation was illustrated and explained well. Columns to be removed were described. A data cleaning function was implemented with all input and output arguments described clearly. Code was not messy and ran successfully.
Project 1 (b) **Voting Regressor – set up, training, and prediction**	15%	Not attempted or incomplete	Data were randomly split to form the training and test sets. Three base estimators as described were constructed with manually tuned hyperparameters. Base estimators and Voting regressor were trained and tested. The code was quite messy.	Data were randomly split to form the training and test sets. Three base estimators (as specified in the labsheet) were constructed with manually tuned hyperparameters. Base estimators and Voting regressor were trained and tested.	Data were randomly split correctly to form the training and test sets. Three base estimators (as specified in the labsheet) were constructed with manually tuned hyperparameters clearly described. Base estimators and Voting regressor were trained and tested. The code was neat, efficient, and well explained.
Project 1 (c) **Voting Regressor – results and plots**	10%	Not attempted or incomplete	RMSEs of base estimators and Voting regressor were reported. Predicted values vs ground truth values of all test instances were illustrated. Illustration is unclear.	RMSEs of base estimators and Voting regressor were reported and compared. Predicted values vs ground truth values of all test instances were illustrated. Illustration can be improved.	RMSEs of base estimators and Voting regressor were reported, compared, and explained. Predicted values vs ground truth values of all test instances were illustrated. The code was neat, efficient, and well explained.
Project 2 (a) **Data loading, visualisation, and preparation**	7%	Not attempted or incomplete	Data read in but was either messy or needed some minor modification. Some basic code for visualising the data was given. Data preprocessing was done appropriately with Python code. Data were randomly split correctly to form the training and test sets.	Data read in without problems. Some basic code for visualising the data was given. Data preprocessing was done appropriately with Python code. Data were randomly split correctly to form the training and test sets. Code ran successfully.	Data read in without problems. Some basic code for visualising the data was given and explained. Data preprocessing was done appropriately with Python code and explained. Data were randomly split correctly to form the training and test sets. Code was not messy and ran successfully.
Project 2 (b) **RF Regressor 1 on full-dimensional data**	14%	Not attempted or incomplete	An RF regressor was implemented with the correct number of estimators. Training and testing were done, with RMSE computed and reported for the test set.	An RF regressor was implemented with the correct number of estimators, with manually experimented 4-5 hyperparameter values defined. Training and testing were done, with RMSE computed and reported for the test set.	An RF regressor was implemented with the correct number of estimators, with manually experimented 4-5 hyperparameter values defined and explained. Training and testing were done, with RMSE correctly computed and reported for the test set.
Project 2 (c) **Feature importance & dimensionality reduction**	7%	Not attempted or incomplete	Code for computing the feature importances was attempted but not fully functional. Code attempted to remove some features.	Code for computing the feature importances (detailed requirements were given in the labsheet specification) ran okay. Features removed and retained were stated. Total numbers of feature dimensions before and after dimensionality reduction were stated.	Code for computing the feature importances (detailed requirements were given in the labsheet specification) ran okay and was explained well. Features removed and retained were stated. Total numbers of feature dimensions before and after dimensionality reduction were stated. Code was neat.
Project 2 (d) **RF Regressor 2 on reduced-dimensional data and comparison**	20%	Not attempted or incomplete	An RF regressor was implemented with the correct number of estimators, with some hyperparameter values defined. Training and testing were done, with RMSE computed and reported for the test set. Comparison with RF regressor 1 was attempted.	An RF regressor was implemented with the correct number of estimators, with manually experimented 4-5 hyperparameter values defined. Training and testing were done, with RMSE correctly computed and reported for the test set. Comparison with RF regressor 1 was given with good illustration (as described in the labsheet specification). Markdown cells contain description of the illustrations.	An RF regressor was implemented with the correct number of estimators, with manually experimented 4-5 hyperparameter values defined and explained. Training and testing were done, with RMSE correctly computed and reported for the test set. Comparison with RF regressor 1 was given with good illustration (as described in the labsheet specification). Markdown cells contain description of the illustrations. Observations from the illustrated results were described.
Project 2 (e) **Bagging Regressor**	14%	Not attempted or incomplete	A Bagging regressor with the correct number of base estimators was implemented. The code seemed to be not fully working. Some hyperparameters for the base estimators were set. Code was messy. Training was done on the training set and tested on the test set. RMSE of the predictions for the test set was reported. Not all the required tasks were implemented.	A Bagging regressor with the correct number of base estimators was implemented. The code ran successfully to completion. Hyperparameters for the base estimators were set appropriately. Code was reasonably neat. Training was done on the training set and tested on the test set. RMSE of the predictions for the test set was reported. An appropriate illustration of the predicted ring values vs the ground truth ring values of all the test instances was given.	A Bagging regressor with the correct number of base estimators was implemented. The code ran successfully to completion. Hyperparameters for the base estimators were set appropriately. Code was neat and well explained. Training was done on the training set and tested on the test set (as detailed in the labsheet specification). RMSE of the predictions for the test set was reported. An appropriate illustration of the predicted ring values vs the ground truth ring values of all the test instances was given and explained.
Project 2 (f) **Comparison between RF Regressor 1 and Bagging Regressor**	6%	Not attempted or incomplete	Performance comparison of RF regressor 1 and Bagging regressor was given. Need more effort to improve the overall presentation.	Performance comparison of RF regressor 1 and Bagging regressor was given. Appropriate Python code was implemented. Overall presentation of the Jupyter Notebook file was good.	Performance comparison of RF regressor 1 and Bagging regressor was given. Appropriate Python code was implemented. Overall presentation of the Jupyter Notebook file was excellent with good use of markdown cell(s).

100%