Survival Prediction

Dataset Description:

Variable	Definition	Key
survival	Survival	0 = No, 1 = Yes
pclass	Ticket class	1 = 1st, 2 = 2nd, 3 = 3rd
Gender	Gender	
Age	Age in years	
sibsp	# of siblings / spouses aboard the Ship	
parch	# of parents / children aboard the Ship	
ticket	Ticket number	
fare	Passenger fare	
cabin	Cabin number	
embarked	Port of Embarkation	C = Cherbourg, Q = Queenstown, S = Southampton

Task:

1. Download and read the data.
2. Apply data pre-processing and handle problems of (missing values, errors, irrelevant features, Categorical Data, Normalization) if found.
3. Split data into training and testing data.
4. Apply **MLP Classifier** model, **Single Perceptron** model and **Linear Regression** model to create models that can predict if person will be Survived or not.

- **<u>After running your model, answer the following Questions:</u>**
    - Is there any relationship between gender and survival? If yes, is it positive or negative?
    - Fill the following table with your evaluation results:

Evaluation Method	MLP Classifier	Single Perceptron	Linear Regression
Accuracy			
MAE			

    - Which Model (Algorithm) gives better results?
    - Show different methods to increase accuracy.

Submission: (Zip file→ yourName_yourID.zip

Code:

- You should submit your python code as jupyter notebook.
- Your code should have understandable comments.
- If you used any library, you should describe the need of each one.