

| Project Name: | | | Stock Market Predictor | | | <div><div>STM</div><div>www.stockmarketpredictor.com</div></div> | | | |
|---------------------|--------------------------------|------------------------------|---|---|------------------------------------|--|---|-------------------------------------|--------------------|
| Module Name: | | | Data processing | | | | | | |
| Reference Document: | | | JF-ans | | | | | | |
| Created by: | | | Aaron R | | | | | | |
| Date of creation: | | | DD-MM-YY | | | | | | |
| Date of review: | | | DD-MM-YY | | | | | | |
| TEST CASE ID | TEST SCENARIO | TEST CASE | PRE-CONDITION | TEST STEPS | TEST DATA | EXPECTED RESULT | POST CONDITION | ACTUAL RESULT | STATUS (PASS/FAIL) |
| TC_DC_01 | Data Cleaning | Handling Missing Data | The dataset exists and is accessible. - There are missing values in the dataset. | 1. Load the dataset with missing values. 2. Apply the data cleaning process. | Dataset with missing values. | Missing values should be imputed or removed based on the defined strategy. | - A dataset without missing values. | Dataset eligible for model training | P |
| TC_DC_02 | Data Transformation | Feature Scaling | - The dataset is loaded and cleaned. - The dataset contains numerical features and possibly categorical variables. | 1. Apply feature scaling to the dataset. | Scaled dataset | Features should have a consistent scale (e.g., normalized or standardized). | | Dataset eligible for model training | P |
| TC_DC_03 | Encoding Categorical Variables | Encode categorical variables | - The dataset is loaded and cleaned. - The dataset contains numerical features and possibly categorical variables. | 1. Encode categorical variables. | Dataset with categorical variables | Categorical variables should be converted into numerical representations (e.g., one-hot encoding). | Numerical dataset with encoded categorical variables. | Dataset eligible for model training | P |
| TC_DC_04 | Feature Engineering | Feature Extraction | The dataset is cleaned and transformed. - Domain knowledge or analysis has identified potential relevant features. | 1. Extract relevant features. | Original dataset | Reduced dimensionality dataset with important features. | | Dataset eligible for model training | P |
| TC_DC_05 | Data Splitting | Train-Test Split | The dataset is imbalanced. - The data split has been performed (Scenario 4). | 1. Split the dataset into training and testing | Preprocessed dataset. | Two disjoint subsets for model training. | | Dataset eligible for model training | P |
| TC_DC_06 | Data Preprocessing Pipeline | Full Preprocessing Pipeline | The raw dataset is available. - Data cleaning, transformation, and, if necessary, | 1. Execute the complete preprocessing pipeline | Raw dataset. | Preprocessed dataset ready for model training. | | Dataset eligible for model training | P |

Preprocessed dataset ready for model training.

