**STOCK MARKET PREDICTOR**

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| **PROCESS NAME:** | Level 1.0 User Request Processing |
| **DESCRIPTION:** | This level process user’s Request, offers the user to use additional features and provide feedback to prediction and accuracy of the mentioned stock whilst maintain all the records and databases. |
| **INBOUND DATA FLOWS** | Name of the stock, Response to Additional Features, Feedback to prediction and accuracy, Response to name of stock, Additional features. |
| **OUTBOUND DATA FLOWS:** | Opt to choose Additional features, Feedback to prediction and accuracy, name of the stock. Response to Additional Features  , (Name of stock, Accuracy and Prediction). |

**First Level Process Description: -**

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| **PROCESS NAME:** | Level 2.0 Database Processing |
| **DESCRIPTION:** | This level after checking if the stock is already present in the system or not requests Yahoo’s database to provide the Historical Data of the stock mentioned, even if it’s in the system it will still check whether it’s up to data or not. |
| **INBOUND DATA FLOWS** | Name of the stock, Response to name of stock. New/Updated Data |
| **OUTBOUND DATA FLOWS:** | Name of the stock, (Name of the Stock, New/updated Data), Name of the stock. |

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| **PROCESS NAME:** | Level 3.0 Additional Feature Processing |
| **DESCRIPTION:** | This level supplies the user with additional features to act on the dataset of the stock mentioned and forwarding the response of that exchange to the other levels of the system. |
| **INBOUND DATA FLOWS** | Response to Additional features |
| **OUTBOUND DATA FLOWS:** | Additional Features, Response to Additional Features. |

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| **PROCESS NAME:** | Level 4.0 Database Distribution Processing |
| **DESCRIPTION:** | This level is responsible for splicing the dataset into Test and Train sections and then further using the Response to additional features by the user to select informative data points to add to the Train db and further pass them onto other levels to process upon. |
| **INBOUND DATA FLOWS** | Dataset, response to Additional Features, fetching train dataset, Fetching Test Dataset. |
| **OUTBOUND DATA FLOWS:** | Test and Train Data, Test Dataset, Train dataset, Additional Features Applied. |

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| **PROCESS NAME:** | Level 5.0 Prediction, Accuracy and Graph Processing |
| **DESCRIPTION:** | This level is the one where the actual algorithm gets trained over the Train Dataset and then further get tested over the Test Dataset, by that a prediction of the stock and accuracy of the prediction is generated, also this level generates a predicted graph for that stock to compare prediction and actual dataset. |
| **INBOUND DATA FLOWS** | Test and Train Data |
| **OUTBOUND DATA FLOWS:** | Graph, Feedback to prediction and Accuracy. |