UNIVERSITY OF SARGODHA
DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

Capstone Project 2019-20 *BSCS 7th Self*

PROJECT IMPLEMENTATION PLAN

Sr.	Milestone Detail	Outcome	Project %	Roll #	Member's Contribution	Learning Outcome	Viva
1	Getting dataset and load it into Jupyter Notebook.	We have loaded dataset into jupyter and analyzed the data with different libraries.	5%	BSCSF16E031	Loading dataset to interactive jupyter notebook	Pandas for reading and writing to csv	
				BSCSF16E060	Analyzing data.	Pandas for reading and writing to csv	
				BSCSF16E010	Analyzing data.	Pandas for reading and writing to csv	
2	Performing Exploratory Data Analysis, removing missing values from data set.	Dataset without any missing values.	10%	BSCSF16E031	Analyzing any missing values from the dataset, removing those missing values	Learnt pandas to filter out empty values	
				BSCSF16E060	Analyzing any missing values from the dataset, removing those missing values	Learnt pandas to filter out empty values.	
				BSCSF16E010	Analyzing any missing values from the dataset, removing those missing values	Learnt pandas to filter out empty values	
3	Visualizing trends and Correlated Analysis.	Graphical display of trends from series and removing correlated variables	15%	BSCSF16E0031	Analysis of trends and then visualizing trends on graph, and correlation analysis	Learnt how can we visualize by matlotplib and seaborn, how can we locate correlated variables	
				BSCSF16E060	Analysis of trends and then visualizing trends on graph.	Learn how to visualize trends?	
				BSCSF16E010	Analysis of trends and then visualizing trends on graph.	Learnt how to visualize trends?	
4-5	Performing Time Series Analysis, analyzing seasonality and trends.	Graphical display of seasonality and trends from our series	30%	BSCSF16E031	Time series Analysis, Analyzing seasonality.	Learnt Time series Analysis, Trends and seasonality.	
				BSCSF16E060	Time series Analysis Analyzing Trends.	Learnt Time series Analysis, Trends and seasonality.	

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				BSCSF16E010	Time series Analysis Analyzing Trends.	Learnt Time series Analysis, Trends and seasonality.	
6-7	Time Series Sales Forecasting with ARIMA.	Predictions of sales in tabular form by Implementation of ARIMA	45%	BSCSF16E031	ARIMA MODEL	Learn how to do forecasting on past values using ARIMA MODEL.	
				BSCSF16E060	ARIMA MODEL	Learn how to do forecasting on past values using ARIMA MODEL.	
				BSCSF16E010	ARIMA MODEL	Learn how to do forecasting on past values using ARIMA MODEL.	
8-9-10	End goal to Implement Prophet model for Sales Forecasting.	We have performed Prophet model in our project which is the main model we are using our time series Analysis, after Analyzed this model now our non-linear trends are fit with yearly, weekly and daily seasonality.	60%	BSCSF16E0031	Initializing dataset according to prophet model, fitting the model and performing predictions.	Going through the implementation of Prophet model, to forecast sales, forecasting trends also with the holidays effect	
				BSCSF16E060	Prophet Model.	Learn how to work On prophet Model in time series analysis.	
				BSCSF16E010	Prophet Model.	Learn how to work On prophet Model in time series analysis.	
11-12	Validating forecast using Prophet Model Functionality.	Visualization of our predicted sales with the real ones for diagnosing.	80%	BSCSF16E031	Diagnosing our output.	Getting experience on how we can diagnose our predictions using prophet features	
				BSCSF16E060	Visualizing Forecasting on jupytor using Prophet Model.	Visualizing Forecasting on jupytor using Prophet Model.	
				BSCSF16E010	Visualizing Forecasting on jupytor using Prophet Model.	Visualizing Forecasting on jupytor using Prophet Model.	

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13	Integrating our model into the Python Flask to build user interface.	Shifting our train model and integrating with the application development process	75%	BSCSF16E031	Python Flask.	How to integrate our model into python flask.	
				BSCSF16E060	Python Flask.	How to integrate our model into python flask.	
				BSCSF16E010	HTML, CSS, bootstrap also Using flask.	How to build our user interface?	
14-15-16	Developing User Interface for graphical display of future sales yearly, monthly and daily basis.	.Now We have Developed user interface with further more functionalities. Using our model to display Graphs where user will forecast datasets.	100%	BSCSF16E031	Python Flask.	How to do implementation using flask.	
				BSCSF16E060	Python Flask	User interface.	
				BSCSF16E010	Responsiveness our GUI, Using bootstrap and correlated frameworks.	User Interface.	

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