Revised Project Plan

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Sprint 1

Requirement study sprint.

- Initial meet : we met with the client and got the details of the problem statement and discussed a rough sketch of the flow of the project and tools to be used
- Research and learning : learnt the basics of the tools to be used in the project and researched about the problem statement

Sprint 2

Planning and deciding the flow of the project to be done. Started with the initial development process in this sprint.

- Planning meets : met with client for clarity on the project regarding requirements and deciding feasibility of the functional requirements
- High level design requirements : decided about the what all modules should be there and their functionality
- Planning : Planned out and granularized the project goals for other sprints
- Distribution of responsibilities regarding the project to be done
- Research : researched about the detailed requirements to be given by the client and came to common ground about the project within team and with the client

Sprint 3

Gathering resources for the project and developing offline model for the minimum functionality

- Algorithm : Finalizing the machine learning algorithm to be used for the prediction
- Data gathering : get the complex's energy consumption data
- Data cleaning : with consultation of client clean the provided data
- Analyse the given data and start with feature engineering of the model

Sprint 4

Finalize the offline model and confirm it with client

- Development : develop the program in jupyter notebook
- Graphs : give graphical analysis of given data only
- UI skeleton work for the R1 presentation
- Testing of the modules developed so far
- Finish the modules with R1 scope

Sprint 5

Short sprint. Plan to clear backlogs of R1 first.

- Error handling : There was some error in the prophet model's library regarding saving the model to a pickle file, we corrected that issue and saved the model to pickle file for integrating it with the UI
- Gathering data : find data for the hourly weather situation and use it to train the model
- API hunt : find suitable API for the regular update of the weather data and also API for collecting the energy consumption data of the complex

Sprint 6 (23rd march)

Work done after completion of R1 :

- Handling of error in predicted value : the client asked us to remove the negative values obtained in the predicted data set.
- Updating the Prophet algorithm according to requirement : Prophet is a procedure for forecasting time series data based on an additive model where non-linear trends are fit with yearly, weekly, and daily seasonality, plus holiday effects. We updated it according to data available to us.
- Integration of subsystems of the module has been completed.

Sprint 7

In this sprint we plan to finish all the functional components including UI. The integration and testing of the system will be completed primarily. A decently tested product will be released.

- Graphic prediction modules completion : representation of graphical analysis to be completed and categorised.
- Feedback system to be made : running the system on different machines a penfinal prototype is to be made and run on different systems and feedback to be obtained primarily from the client.
- UI implementation : flow of UI to be reconfirmed with the client and prototype to be presented. After finalizing the flow we will be implementing a to-be-deployed UI.

- Testing integration : final testing after integration of different modules to be done. Testing would include working of individual components, checking the buttons and confirming the flow of the system
- Integrating modules with the UI : Each functional module is to be integrated with the UI.

Sprint 8

This is the final stage of the project. We plan to finish all the testing and integration based on the feedback form client and user in this sprint. Updates based on the feedback, optimisations and improvising the system will be done (if time permits)

- Testing individual module based on feedback
- Integration of modules based on feedback
- Improvising system based on the feedback
- Refine UI to make it smoother for all the platforms
- Optimising system structure : we plan to come up with better system to fetch data