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| Project Contribution | | | | | |
| **Major Task** | **Member Name** | **Sub Tasks** | **Description** | **Completed on** | **Status** |
| **Topic selection** | Kanchan Bagga | Finding project topic, Topic related search | Project that could be useful in future. Should have something new. Scope for job placement. Should be useful in real life as a tool. | February 04, 2020 | Done |
| **Dataset** | Jaspreet Kaur | Finding dataset (Searching, getting access and downloading) | Searched dataset from different websites. Sent emails to many of the organizations for accessing their datasets. Got access for MIMIC dataset and downloaded | February 18, 2020 | Done |
| Jaspreet Kaur  Kanchan Bagga  Varinderjit Singh | Target and supporting variables selection | Target variable (LOS) was already cleared in everyone’s mind but all the supporting variables were needed to select that could effect on LOS. | February 25, 2020 | Done |
| Kanchan Bagga | Data Cleaning (Changing format, keeping necessary data only) using excel | Changed downloaded files format. Made one single file from 27 files by merging all necessary columns in master file only. Removed unnecessary columns only, removed outliers, data about emergency department only was kept. Some new columns are made. Missing data rows are removed. | March 03, 2020 | Done |
| Varinderjit Singh | Cleaned data understanding & exploration | Understood & explored cleaned data in SQL Server for my satisfaction and cross checking. | March 05, 2020 | Done |
| **Project related research** | Jaspreet Kaur | Searching work done on related projects | Projects that are already made on same topic. So that we could come to know what is done and what different we can do. | March 03,2020 | Done |
| **Article reading** | Varinderjit Singh  Kanchan Bagga  Jaspreet Kaur | Studied 10 (4-3-3) articles individually | Study articles based on how we can use machine learning in our project. For understanding what kind of models, we can use and how we can improve their accuracy. | March 12, 2020 | Done |
| **Model Study** | Jaspreet Kaur | ANN, Logistic regression,  K-neighbor | YouTube tutorials,  Google search | March 23, 2020 | Done |
| Kanchan Bagga | CNN, Random forest, Gradient boosting | YouTube tutorials,  Google search | March 19, 2020 | Done |
| Varinderjit Singh | Confusion matrix, Multiple linear regression | YouTube tutorials,  Google search | March 20, 2020 | Done |
| **Model Building** | Varinderjit Singh | Neural network,  Multiple linear regression,  Confusion matrix |  | - - - | Pending |
| Kanchan Bagga | Random forest,  Gradient boosting |  | March 24, 2020 | Done |
| Jaspreet Kaur | Logistic regression,  K-neighbor |  | March 24, 2020 | Done |
| **Report writing** | Jaspreet Kaur |  |  | - - - | Pending |
| **Presentation** | Kanchan Bagga |  |  | - - - | Pending |