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<i>Task</i>	<i>Assigned to</i>	<i>Due Date</i>
❖ Data processing		
Load data into R	Annie	✓
Replace missing values in sparse data features	Emily	11/9/2020
Convert Activity_Name values to one-hot encoding	Emily	11/9/2020
Split the data to remove unusable portions (CGM=NA)	Emily	✓
Convert CGM data to categorical with time lagged differences	Woojin	11/9/2020
Convert date & time to standard timestamps	Annie	✓
Convert data to time lagged matrix (for neural networks)	Annie	✓
(Pima) Load data	Geongu	✓
(Pima) Replace missing values to mean	Geongu	✓
(Pima) Normalize feature values	Geongu	✓
❖ Data exploration		
Plot CGM with other feature data across time	Emily	11/9/2020
Plot univariate time series CGM data	Annie	✓
Correlation matrix of all features	Emily	11/9/2020
Check for multicollinearity using VIF, compare time lag plots	Woojin	11/9/2020
Histograms of feature values	Emily	✓
(Pima) Correlation matrix of features	Geongu	11/9/2020
(Pima) Histograms of feature values	Geongu	11/9/2020
(Pima) Plot data and drop outliers	Geongu	11/9/2020
❖ Analysis preparation		
Choose a time period for ts prediction analysis	Annie	✓
Test for stationarity and differencing (ARIMA)	Annie	✓
Autocorrelation/Partial autocorrelation plots (ARIMA)	Annie	✓
Decide architecture for NN models (layers, nodes, etc.)	A, E, J	11/9/2020
Split into train/test set for validation	Woojin	11/9/2020
(Pima) Split data using K-fold Cross Validation	Geongu	✓
❖ Modeling		
Build and train the ARIMA model	Annie	✓
Build and train LSTM	Annie	11/15/2020
Build and train other neural networks (note: specify)	Jim, Emily	11/15/2020
Build and train logistic regression, classification models	Woojin	11/15/2020
(Pima) Build and train logistic regression	Geongu	11/15/2020
(Pima) Build and train KNN	Geongu	11/15/2020
(Pima) Build and train Naive Bayes	Geongu	11/15/2020
❖ Optimize the model		

Assigned:
October 18, 2020

Project - Plan & Detail

Due :
November 8, 2020

Reassess model architecture and retrain (NN)	A, E, J	11/22/2020
Reassess model parameters and retrain (ARIMA)	Annie, Emily	11/22/2020
Reassess and retrain different models (classification)	Woojin	11/22/2020
❖ Evaluating models		
Plot the ts predicting results	Jim	11/25/2020
RMSE/MSE/MAP computation	Jim	11/25/2020
Apply best models to other data files (same set, different user)	All	11/28/2020
(Pima) Error comparison between classification methods	Geongu	11/25/2020
❖ Project report		
Assign report sections	All	11/21/2020
Create and export figures	All	11/28/2020
Create tables for comparing models	Jim	11/28/2020
Record final presentation video	All	11/29/2020
Write report sections	All	12/2/2020
Edit final presentation video	Jim	12/2/2020