User Stories

Version Control

Version	Date	Update notes
v1	07 Apr 2021	• Initial write up of User Stories based on Goal Model v4 and client meeting
v2	12 Apr 2021	• Clean-up of User Stories, including Epic categorization and missing user stories
v3	19 Apr 2021	• Restructuring based on client meeting and CRUD perspective
v4	23 Apr 2021	• Changed priorities, removed and added user stories based on client meeting
v5 (Current)	02 May 2021	• Removed storage requirements based on client meeting

Predictive Monitoring Module - User Stories

Epic	User Story ID	As a/an	I want to	So that	Priority 1: Highest 5: Lowest
Predictive Monitors	US1.1	operations manager	import one or many predictors in the form of pickle files to **create** a monitor object	I can use it to predict specific information given an event log and other information.	1
	US1.2	operations manager	name my predictive monitors specific names	I can refer back to them easily later on.	5
	US1.3	operations manager	**read**/view all the predictive monitors I've made	I can view all my monitors in one place choose the appropriate one for my event log.	1
	US1.4	operations manager	**update** specific details about a monitor such as its name or predictors	I can adjust my monitor to fit with changing specifications or fix mistakes.	2
	US1.5	operations manager	**delete** one of my predictive monitors	I can clean up the monitor management view from unneeded monitors.	3
Monitor Dashboard Management	US2.1	operations manager	be able to **create** a dashboard by inputting the event log into the monitor	I can create predictions for open cases in the event log intuitively.	1
	US2.2	operations manager	**read**/view the progress of the monitor dashboard I've made	I can determine when the results will be available and do some other work in the meanwhile.	3

	US2.3	operations manager	**create** another monitor dashboard while the system is still processing the previously made monitor	so that I can multitask with several different event logs and save time.	2
	US2.4	operations manager	**delete** a monitor dashboard I've made previously	I can clean up the dashboard management view from unneeded dashboards.	4
Monitor Dashboard View	US3.1	operations manager	be able to **read** on a monitor dashboard, the aggregate data statistics such as average case length, duration, and amount completed	I can have a brief overview of all the cases.	2
	US3.2	operations manager	be able to export the case-level dashboard as a CSV file	I can use it outside of the system and present the results to others.	1
	US3.3	business analyst	**read**/view the prediction results of the event logs in a tabular form, grouped by a case per row with its relevant attributes	I can have a better overview and understanding by having all the relevant data and predictions in a structured form.	1
Case-level Predictions	US4.1	business analyst	able to **read**/view the results of the remaining time predictor I used for this monitor as an additional field containing predictions of remaining time for each case	I can analyze the efficiency of the incomplete business process and find out certain parts which may be bottlenecks in the process.	1
	US4.2	business analyst	be able to **read**/view the results of the categorical predictor I used for this monitor as two additional fields containing the predicted category of each case and the probability of the prediction	I can analyze more specific details regarding the cases that are not specified in the data or group them together to analyze separately.	1

Predictive Monitoring Module - Acceptance Criteria

Acceptance Criteria ID	User Story ID	Given	When	Then
	US1.1	one or many pickle files	I import these pickle files into the monitor creation	the system will create a monitor object corresponding to the predictors I imported
	US1.2	a predictive monitors creation page	I input the specific name of a monitor in a "enter monitor name" block	I can search this predictive monitors via the new name later after I save this monitor
	US1.3	a list of predictive monitors	I check the predictive monitoring page	I can read a table contains all my monitors on the dashboard to show the “ID”, "name" and "time created" of each monitor I have been created.
	US1.4	a created monitor	I update the details of this monitor (I.e. input a new name for this monitor)	the new change can be saved quickly.
	US1.5	a list of predictive monitors been created in predictive monitoring page	I click the 'delete" button	the system will delete and remove this predictive monitor from the list of predictive monitors I have been created.
	US2.1	a predictive monitor has already been created and selected	I import an event log and an appropriate schema and press the create button	the system will create a dashboard for that monitor and event log and begin prediction in the back-end.
	US2.2	a dashboard has already been created beforehand	I view the dashboard management display	I can see the progress of that dashboard's prediction.
	US2.3	one or several other dashboards are currently being processed in the back-end	I create another dashboard	then the system will also process this request along with the other dashboards.
	US2.4	a dashboard has been created and in any statement	I select the delete button for that dashboard	processing for that dashboard should be stopped, removed from the queue, and the dashboard removed from memory.
	US3.1	a dashboard has finished processing	I select that dashboard	the system should display the aggregate data
	US3.2	a dashboard has finished processing and I'm viewing its details	I select the "Export CSV" button	I should receive the prediction table view as a downloadable CSV I can save on my device.
	US3.3	a dashboard has finished processing	I select that dashboard	the system should display the prediction table view.

	US4.1	a dashboard from a monitor with a remaining time predictor has finished processing	I select that dashboard and check the table view	I can read the remaining time predictions for each case in a column of the table view.
	US4.2	a dashboard from a monitor with a binary predictor has finished processing	I select that dashboard and check the table view	I can read the binary predictions and their probabilities for each case in 2 columns of the table view.

Training Module - User Stories

Epic	User Story ID	As a /an	I want to	So that	Priority 1: Highest 5: Lowest
Predictor Training	US5.1	business analyst	**create**/train a remaining time predictor by importing an event log of closed cases and a schema	I can use the predictor for making predictions regarding how long some open cases may take.	2
	US5.2	business analyst	be provided the option to import a filter file as part of the training module	I can **create**/train binary predictors instead of remaining time for the open cases intuitively.	2
	US5.3	business analyst	name my predictors specific names	I can easily refer back to them easily later on.	4
Training Options	US6.1	business analyst	train my predictor without any advanced options and just the default training options (frequency encoding, no bucketing method, and XGBoost prediction)	I can easily create a predictor without having to have in-depth knowledge of specific ML concepts.	2
	US6.2	business analyst	train my predictor with advanced options that allow me to select the type of encoding, bucketing method, and prediction method	I can fine-tune the type of predictor I make.	4
Predictor Management	US7.1	business analyst	**read**/view a list of all the predictors that I've made	I can recall all the relevant predictors I can use in the future.	~~2~~ 3
	US7.2	business analyst	**read**/view the progress of the predictor I'm training	I can determine when the predictor will be available and do some other work in the meanwhile.	3
	US7.3	business analyst	**create**/train another predictor while the system is still training the previous predictor	I can multitask with several different predictors and save time.	~~3~~ 2
	US7.4	business analyst	**update** a predictor's details such as its name	I can clarify which predictors are which if there are changing requirements.	5
	US7.5	business analyst,	**delete** a predictor	I can clean up the predictor management view from unneeded predictors.	2
Predictor Dashboard	US8.1	data scientist	**read**/view the mean absolute error (MaE) of my remaining time predictor for a different number of events	I know what degree of confidence and error I will be making when using this predictor for monitors later on.	3
	US8.2	data scientist	**read**/view the F-score and the AUC of my binary predictor for a different number of events	I know what degree of confidence and error I will be making when using this predictor for monitors later on.	3
~~Storage~~	~~US9.1~~	~~business analyst~~	~~store completed predictor training jobs in memory~~	~~I can reuse them for several monitors later on without having to retrain them.~~	~~2~~

Training Module - Acceptance Criteria

Acceptance Criteria ID	User Story ID	Given	When	Then
	US5.1	an event log and it's schema	I import these and select to train a remaining time predictor	the system will start training a remaining time predictor in the back-end
	US5.2	an event log, it's schema, and a filter file	I import these and select to train a binary predictor	the system will start training a binary predictor in the back-end

	US5.3	I'm on the predictor training page,	I input the name for a predictor and start training	the system will save it as the provided name and I can refer to it again later
	US6.1	I'm on the predictor training page	I click 'train' without any advanced options	the system will train the predictor with frequency encoding, no bucketing method, and XGBoost prediction
	US6.2	a predictor training page	I click 'train' with advanced options and select the type of encoding, bucketing method, and prediction method	the system will train the predictor with the provided options
	US7.1	one or more predictors that have been generated	I navigate to the predictor management page	I can see the list of predictors I have made
	US7.2	a predictor is currently being trained	I navigate to the predictor management page	I can see the progress of the predictor in the back-end
	US7.3	a predictor is currently being trained	I start training for another predictor	I can see both predictors in the predictor management page and their progress
	US7.4	a predictor has already been generated	I set a new name for the predictor	the system will update the predictor with its new name
	US7.5	a predictor is being or has been trained	I select the 'delete' button on the right of the predictor (in the predictor listing)	the predictor will stop its processing (if still being processed), and be removed from the system
	US8.1	a remaining time predictor has been trained	I click 'view' button on the right of its monitor	I can see MaE of the predictor on its dashboard
	US8.2	a binary predictor has completed the training progress	I click 'view' button on the right of its monitor	I can see F-score and the AUC of the predictor on its dashboard.
	~~US9.1~~	~~I have clicked "generate predictor" button to train a predictor~~	~~the training progress has completed~~	~~the predictor will be saved in the system's memory~~