Second Sprint Planning Details

Streaming event data compliance checking in Python

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Tasks	Details	Time	Assignee
1.Remaining Task from Sprint 1	Description: 1. Lock when updating connections 2. Multi-thread for compliance checking	8h	Jingjing Huo
	Implementation: 1.Changing the function calcute_connection_for_different_prefix_automata;		
	Testing: 1. Updating will not happen at the same time; 2. Testing time for compliance checking - goal: 300 events per second	2h	
	Documentation	2h	
2.Function for compliance checking	Description: In this section we will check compliance of the events based on numerous cases. Once compliance is done insert username and status of compliance checker into database to indicate the user with “username” has completed compliance checking	17h	Sabya Shaikh
	Implementation: 1. create source_node from latest n nodes(prefix sizes) and sink_node from the last event that has arrived + latest n-1 nodes 2. Check if the event is the within the first 4 events of that case. If yes then check all the source_nodes in automata if they are same as sink_node which is generated in step: 1 3. If not first 4 events, compare the source_node and sink_node with the automata’s source_nodes and sink_nodes.	12h	

	4. If there is match found in step:2 and 3 then check for probability greater than threshold if no, then alert the client 5. It no match found in any case alert the client 6. Insert the data in alertlog whenever applicable		
	Testing: 1. Check if source_node, sink_node are generated properly for every window size 2. Check if the event is a start event then whether it is checked correctly by comparing with “only source_node” 3. Check if event is not a start event then comparison of both sink_node and source_node generated is made with sink_node and source_node of automata for all window sizes. 4. Check if alert is generated then is it generated with correct cause	5h	
	Documentation	2.5h	
3.Generate alert automata PDF with exception raising or handling	Description: In this section, we will build the normal automata PDF using the training automata information in the memory.		Zheqi Lyu
	Implementation: 1. Create automata pdf object 2. Write object into pdf and save locally	10h	
	Testing: 1. Test automata pdf object 2. Compared with draft automata per hand	2h	
	Documentation	1h	
4. Improve automata PDF with alert	Description: In this section, we improve the alert automata PDF using the alertlog information in the memory. E.g. using colors and thickness of the lines to indicate different type of alerts and different thresholds.		Zheqi Lyu Jingjing Huo
	Implementation: Improve automata pdf object (add more function for alerts)	9h	

	Testing: 1. Test new functions 2. Compared with draft automata per hand	2.5h	
	Documentation	1h	
5.Server logging with exception raising or handling	Description: In this section, every activity that happens on the server side shall be logged. There are different activities that will have different formats. For example for an activity timestamp, message type(error,info),function name, message will be logged but in some cases, where events are being processed, its case_id, thread_id and its activity must also be logged.	8h	Sabya Shaikh
	Implementation: 1. Create Logging Class 2. Format the logging messages based on the arguments received and function called 3. Write into logging file 4. Adding logging into every function at server side	5h	
	Testing: 1. Check if correct function called with specific arguments 2. Check if logging correctly into file based on Message type as “Info” or “Error”	2.5h	
	Documentation: Logging function with its description	0.5h	