SYSEN 6150: Model Based Systems Engineering

Use Case, UCBD, Orig. Req., FFBD

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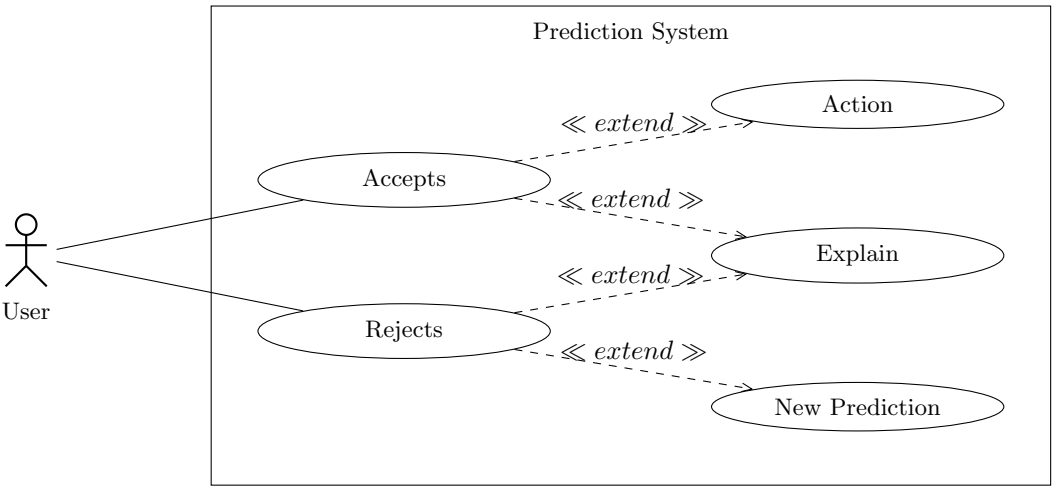
Use Case Diagram

The following diagram broadly outlines the reaction from a user of the system and how the system should handle that input.



Use Case Behavioral Diagram (UCBD)

The following diagram exhibits *one* scenario when a new user begins to use the system.

Prediction System		
Initial Conditions		
1. The system is in a state on stand by for request.		
User	**System**	**Outcome**
The user requests prediction on wait time.		
	The system shall respond with estimated wait time.	
The user rejects predicted wait time.		
	The system shall respond with explanation for wait time.	
	The system shall offer new prediction.	
		No direct action is taken by the user.
Ending Conditions		
1. The system is in a state to input user preference for max wait time.		
Notes		
1. This assumes a new user to the system.		

Originating Requirements

The following diagram exhibits a truncated version of the original system requirements.

Index	Originating Requirements	Abstract Function Name
OR.1	The system shall not store user PII.	PII
OR.2	The system shall input user max wait time.	Max Time
OR.3	The system shall respond within 3 sec. of request.	Response Time
OR.4	The system shall not share other user info.	Shared Data
OR.5	The system shall input local time-zone.	Local Time
OR.6	The system shall not repeat predictions.	Repeat
OR.7	The system shall provide one sentence explanations.	Explain
OR.8	The system shall provide one prediction per request.	Sequence
OR.9	The system shall terminate at user command.	Terminate
OR.10	The system shall be accessible offline.	Offline

Functional Flow Block Diagram (FFBD)

The following roughly illustrates the logical flow of information from a subset of the system, as well as where it is coming from and going to.

Function 2: Prediction & Decision Flow as New User