

## ASSIGNMENT

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## PROBLEM STATEMENT

It is about the inconsistencies in Interpreting the behavior of trigger action programs and the errors made in creating programs with desired behavior.

### Study 1 :

- The study was conducted to understand how users interpret Different trigger and action types.
- It was a Web Based study of Amazon Mechanical Turk.
- The Study was Split into 5 Parts.
- It used a Uniform set of triggers and Actions to minimize variance.
- There were 9 questions asked and users were asked to choose from a multiple choice list to explain when action would occur.
- The second part of the study asked user when the event will end.
- There open ended questions asked to understand people's understanding of the different types of triggers.
- The Last part of the study user demographic's were collected.
- The study had 60 respondents.
- The Finding from the study was that expectation of trigger depend on specific triggers.
- The study found that users had different expectations for when actions should be triggered depending on whether the trigger was a event or a state trigger.
- 85% of the respondents agreed that the rule should activate when the event occurred as long as the state was true.
- Though the expectations varied widely for multiple state triggers they were considered technically valid.

## Study 2 :

- This Model did not ask users to synthesize rules themselves.
- This study is to check if a program creation mitigates any ambiguities observed in the previous study.
- The Interface was designed to feature multiple triggers with different trigger and action types.
- The Interface had a choice of triggers and actions and featured 5 triggers and 5 action categories.
- Since IFTTT does not support multiple triggers implementing it was the open ended design work the author engaged in this study.
- It contained 5 program creation questions and 5 multiple choice questions about the participant's interpretation of a given rule.
- The users were given textual descriptions of the rules in the interface and asked multiple choice questions.
- These questions were asked after the program creation tasks.
- They finally, collected demographics from the acquired information.
- They had 42 participants in the study.
- The Finding was Mute triggers were used in practice.
- 15% users agreed to using the rules shown.
- 31 % said they would not use the rule given in the paper for multiple triggers.
- The study also showed that event and state trigger were not well understood. The rule with a event a state trigger are hard for users to synthesize.
- Users also have a varied mental models for state triggers.
- More respondents thought that sustained actions would undo themselves and would forget to undo them and are influenced by the current products available in the market.