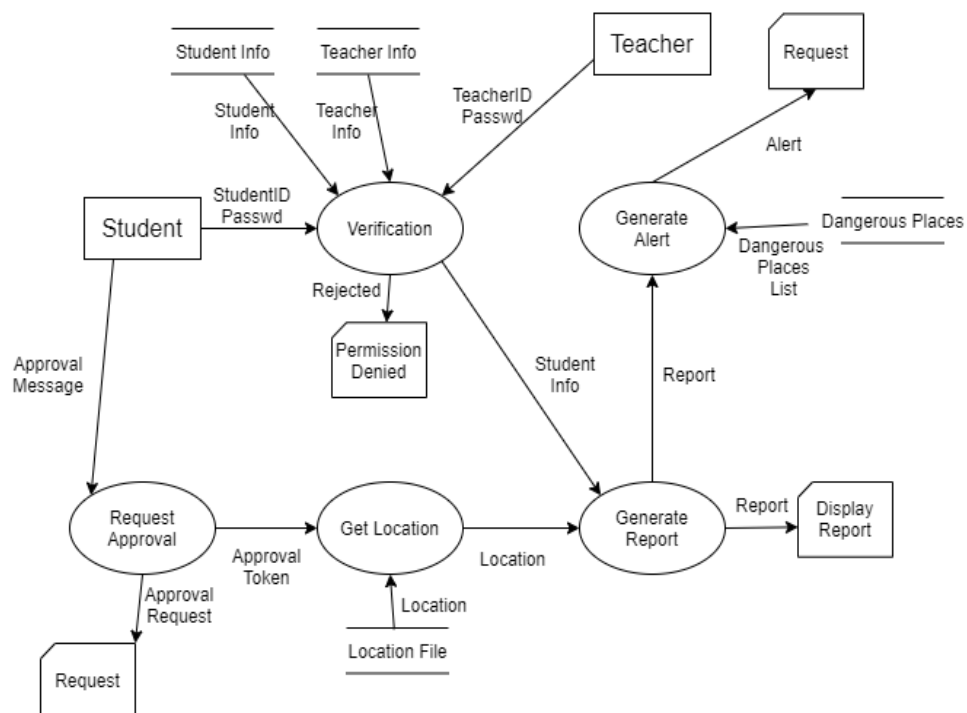


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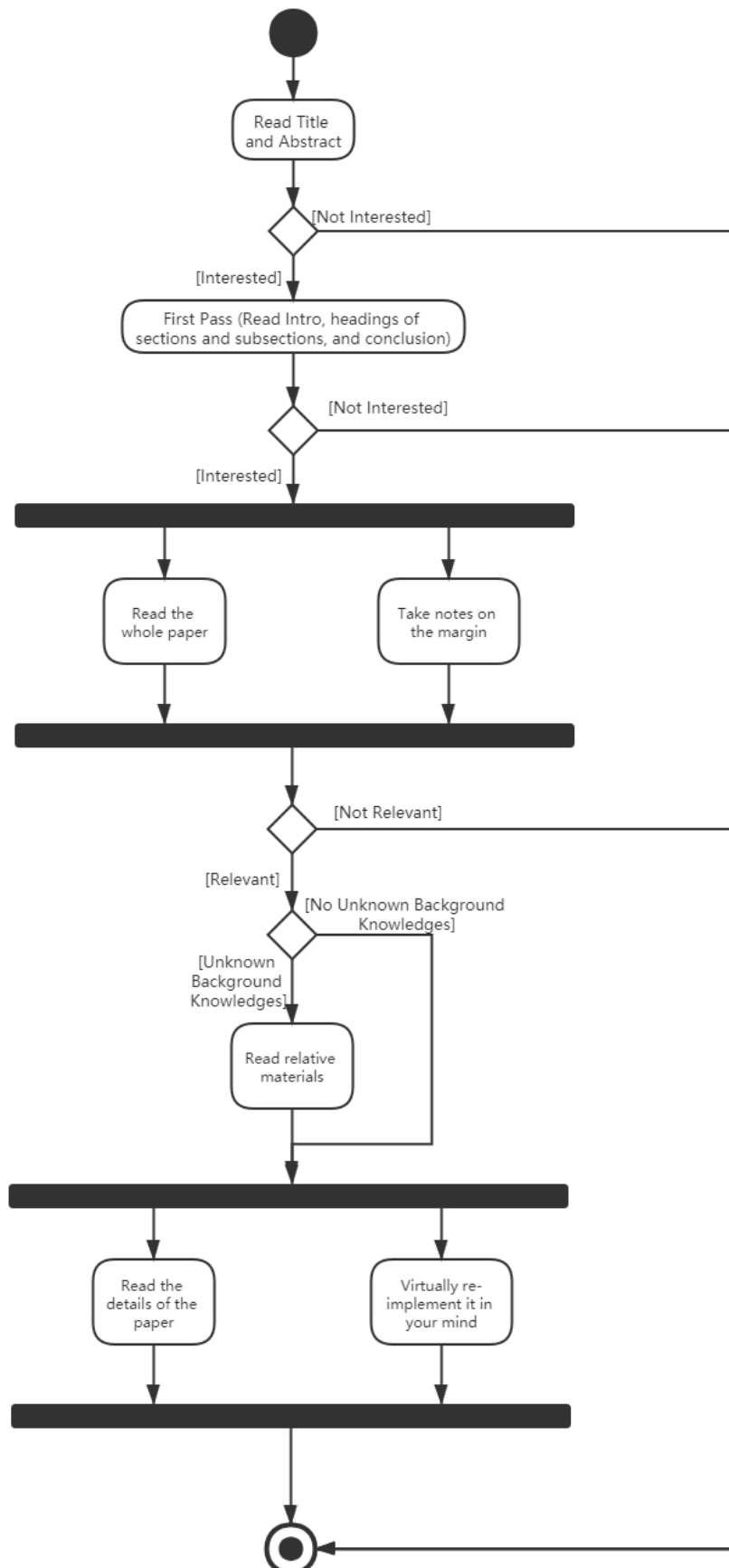
Assignment 2

Due – midnight, 28th Feb, 2021 (Sunday)

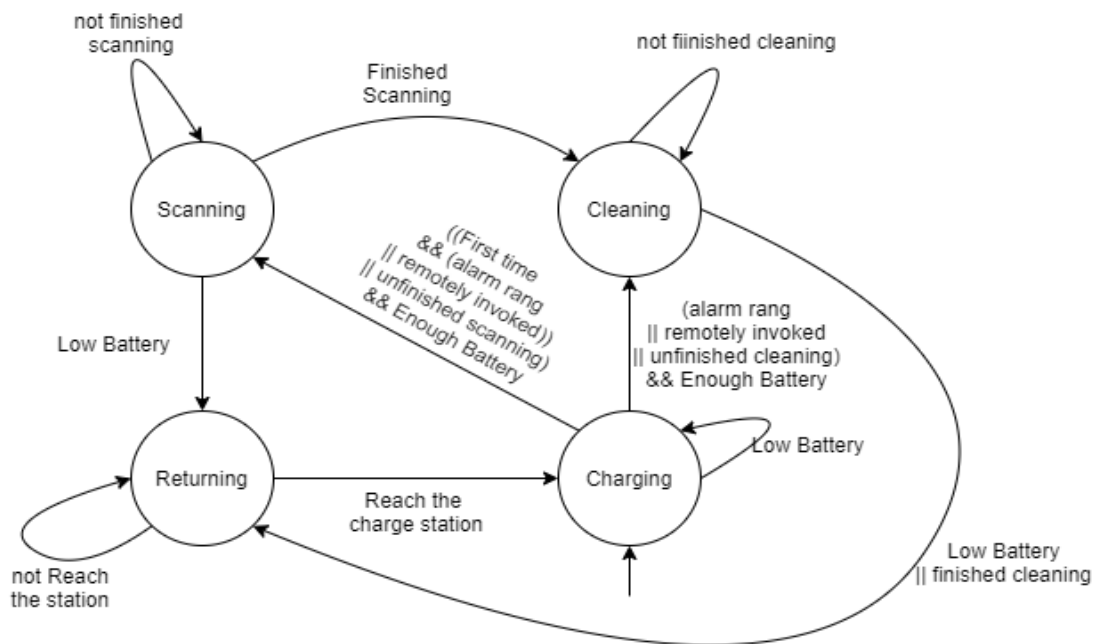
1. Answer



2. Answer



3. Answer



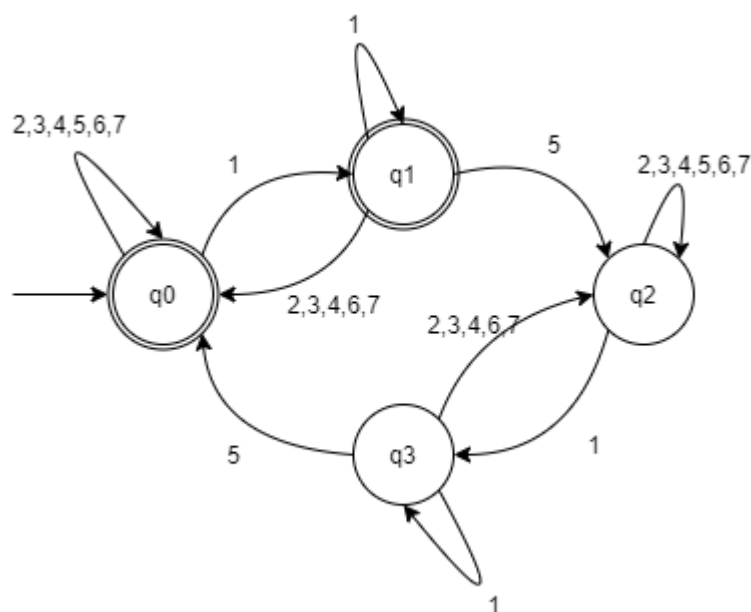
(Note: "&&" is the notion for logical and operator. "||" is the notion for logical or operator)

Advantage: Clearly visualize the actions of the robot.

Disadvantage: May become extremely complex.

4. Answer

a)



q0: initial state

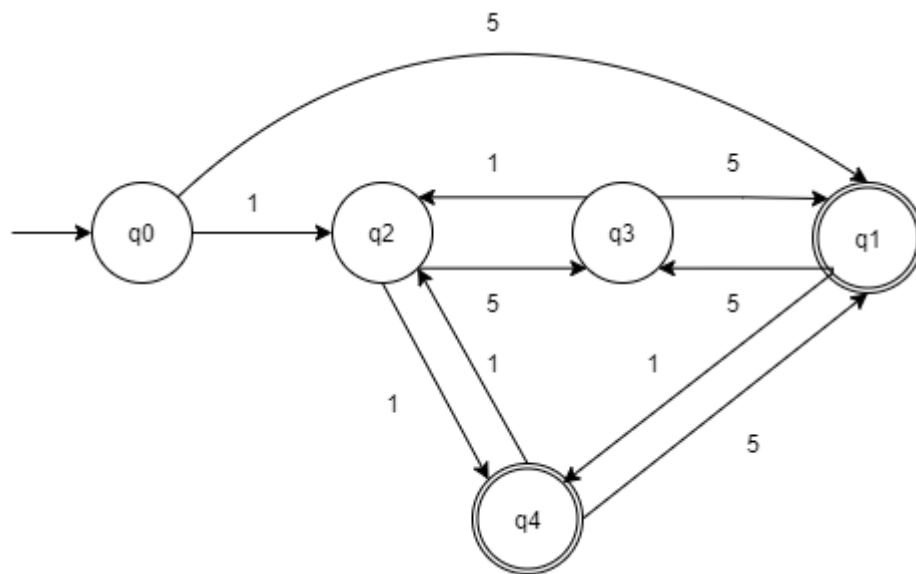
q0: strings contain an even number of times of "15" and do not end with "1";

q1: strings contain an even number of times of "15" and end with "1";

q2: strings contain an odd number of times of "15" and do not end with "1";

q3: strings contain an odd number of times of "15" and end with "1".

b)



q0: initial state

q1: strings with an odd number of digits and end with "5";

q2: strings with an odd number of digits and end with "1";

q3: strings with an even number of digits and end with "5";

q4: strings with an even number of digits and end with "1";