Software Engineering COMP433
Tutorial -3- Requirements Engineering

1. Consider the following two sets of Requirements.
   Requirement Set-1:
   -: The system shall provide a service for users (students) to register and create an account.
   -: Users shall be able to submit queries
   -: The system shall adhere to the guidelines set by the ministry of higher education
   -: Users should be able to listen to music when using the website
   -: The system shall allow only the registered users to use the services of the website.

   Requirement Set-2:
   R1.0: Registered users shall be able to submit a new application to study at the university during normal working hours, adhering to the education submission procedures.
   R2.0: The system shall create an application template and opens it in a new web page when users press new application button, from the "create new application" web page. The template should have the following data fields: Full Name, DoB, address, telephone numbers, Tawjihi Grade, and three Subjects to be studied in the order of preference.
   R3.0: The system shall fill the template automatically and detect and extract, intelligently, user details, as per the template, using advanced detection technologies, e.g. biometeric.
   R4.0: The system shall check all the applications data fields are complete and valid before submission and within a reasonable time. The system shall check number data fields contain only number values and text data fields contain at least some text values.

   a) What do you consider the type of each of the above two sets of requirements? user requirements, system requirements (both)? Why? <u>Justify your Answer</u>.

   b) Identify domain requirements in each of the above sets of requirements. Why? <u>Justify your Answer</u>.

   c) You are asked to validate the above two sets of requirements on the following characteristics, identify the ones that do not validate.
   Correctness:
   Unambiguous:
   Completeness:
   Consistency:
   Traceability:
   Realistic/Feasibility:

   Why? <u>Justify your Answer</u>.

2. *If you were a project manger responsible to develop a system for improving the efficiency of a complex integrated manufacturing and ordering system. The environment is very complex and has multilevel hierarchies of end-users. The manufacturing part is complex, has large number of stakeholders, who work in a large area, highly fragmented and could not provide valuable input individually to influence the efficiency of the overall of the manufacturing process. The ordering system is simpler and has limited (or smaller number of) stakeholders, who could provide direct input.*

Which requirement discovery technique (or techniques) would you think would be most suitable or efficient for engineering the requirements? Justify your answer.