

State the following based on your experience with LLMs for Requirements Engineering tasks:

Q-1. How syntactically correct are LLM-generated user stories? Are they following INVEST framework? Provide examples from your problem specification.

Answer : LLM-generated user stories are syntactically correct, and they maintain a proper structure. For the adherence to the INVEST framework :
Independence → There are some dependencies introduced that require adjustment.

Negotiability → Even though the models are flexible, some include overly detailed descriptions.

Value → Clearly defined purpose of the stakeholder

Estimability → Most stories provide sufficient detail, but there are some that lack clarity.

Small → The stories are concise, but there are overly detailed unnecessary explanations introduced by the LLMs

Testability → Most stories include the success and failure criteria

Q-2. How semantically correct are LLM-generated user stories?

Answer : They are generally semantically correct, but they require more precise and detailed prompts to produce desired results.

Q-3. Are LLMs capable of identifying the information about stakeholders and user stories from their own perspectives?

Answer : LLMs are capable of identifying information about stakeholders on their own, however, for the user stories, proper format has to be provided with the front of the card and the back of the card. When considering user stories they generally don't include the acceptance criteria.

Q-4. Are LLMs capable of identifying the acceptance criteria (both success and failure) for the user story?

Answer : LLMs capture the success scenarios accurately but for the failure scenarios, they overlook some cases and also are unable to go into detail for the same.