Discuss which UML models are most applicable at different stages of the Software Development Life Cycle

Unified Modeling Language (UML) notates and explains the processes and execution of various systems, machines, and programmes (Rumbaugh et al., 2004). According to Amazon Web Service (N.D.), developing excellent software efficiently is called Software Development Life Cycle (SDLC), and is done through extensive testing and continuous improvement throughout its completion. To summarize the most applicable UML models at different stages of the SDLC, William and Kaplan (2003) explain that:

- Use case diagrams are beneficial during test planning as they lay out what users must do and who the actors are during the process.
- Class diagrams describe how to data objects are connected and how they can run, making them usable during the designing stage at a high-level
- Interaction diagrams are applicable during various stages such as both high-level and low-level designing, testing, as well as during the collection of requirements.
- Activity diagrams explicitly describe the job of each actor as well the processes, making them useful during designing at a high-level and collection of requirements.
- Deployment diagrams are helpful in recording system asset dissemination during the designing at a high-level stage.

References:

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