Experiment - 1

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DIV: B **Batch**: B3

Team Members:

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Aim: To identify a suitable life cycle model for your case study and justify your choice

ABSTRACT:

What is the product:

Amazon is a leading global e-commerce platform that provides a wide range of products and services to customers worldwide.

Need: Amazon arose from the growing demand for a convenient and reliable online marketplace where customers could purchase products from the comfort of their homes. Amazon's primary users are online shoppers who are looking for a user-friendly and secure way to purchase products. Amazon's platform provides a personalized shopping experience, with recommendations based on previous purchases and browsing history.

How it begun:

Amazon was founded by Jeff Bezos in 1994 as an online bookstore. Bezos had previously worked on Wall Street and was looking for a business opportunity that could take advantage of the growing popularity of the internet. He recognized that the internet could be used to sell books, which were easy to ship and had a broad customer base.

Lean Model: The Lean model is another option for small ecommerce businesses, as it emphasizes a streamlined development process and continuous improvement. With Lean, the focus is on delivering value to the customer as quickly and efficiently as possible, while minimizing waste and maximizing resources. This model is ideal for small businesses with limited budgets and time constraints, as it encourages experimentation and learning through feedback from customers and data analysis

Features:
Customers can easily search and browse products, read reviews, and make purchases, all in one place. Amazon also serves as a platform for third-party sellers to sell their products, providing a global reach to a wide audience of potential customers.Amazon's software engineering process has been critical to the success of its platform. The company has developed a robust software system that handles a large volume of traffic and transactions, providing a high-quality user experience to customers and sellers alike.The software engineering process involves various stages, including requirement gathering, designing, coding, testing, deployment, and maintenance, which has allowed Amazon to continuously improve its platform and expand its offerings. Amazon's software engineering process has been instrumental in the success of its platform, allowing the company to continuously improve and expand its offerings.

Process Model: Agile model, Incremental model, V model
Our Choice: Agile Model

JUSTIFICATION:
Why the Incremental model?
The Incremental model is an iterative software development model in which the software product is developed and delivered incrementally, in multiple stages or iterations. Each iteration typically builds on the previous one, adding new features or functionality, until the final product is delivered. The Incremental model can be divided into several phases or modules, with each module representing a complete functionality of the software. The modules are developed and tested

separately, and once all modules have been integrated, the complete software product is tested and delivered. This approach allows for greater flexibility and adaptability to changing requirements, as well as improved feedback from users throughout the development process.

Why the V model?
The V-Model is a variation of the Waterfall model that emphasizes testing and quality assurance at every stage of the development process. Given the importance of security and reliability in ecommerce, this model could be a good fit for Amazon's software development process. By rigorously testing each component of the platform, from individual modules to the overall system, Amazon can ensure that its e-commerce offerings are secure and reliable for its millions of users.

Why the Agile model?
The Agile model is well-suited for projects with rapidly evolving requirements, which is likely the case for an ecommerce giant like Amazon. Agile is iterative and incremental, which means that new features can be added and tested in short cycles, allowing Amazon to stay ahead of the curve and quickly adapt to changes in the market. This model also emphasizes customer collaboration, which is important for an ecommerce platform that relies on customer feedback to improve its offerings.The Agile life cycle model is a flexible and iterative approach to software development that emphasizes collaboration between cross-functional teams and the ability to quickly respond to change. Amazon's e-commerce platform is built using an Agile approach to ensure continuous delivery of high-quality software.

The Agile life cycle model for Amazon e-commerce typically involves the following phases:

- **Planning**: In this phase, the product owner, stakeholders, and development team collaborate to create a product backlog, which is a prioritized list of features to be developed.
- **Development**: This phase involves iterative development sprints, typically lasting two to four weeks, in which the team works on a subset of the product backlog. The team creates a potentially shippable increment of the software at the end of each sprint.

- **Testing**: The team performs testing throughout the development phase to ensure that the software meets the acceptance criteria for each feature. The testing includes unit testing, integration testing, and acceptance testing.
- **Deployment**: Once a sprint is complete, the team deploys the potentially shippable increment to a staging environment for further testing and validation.
- **Release**: When the product owner approves the potentially shippable increment, the team releases it to production.
- **Monitoring and Feedback:** The team monitors the production environment to detect and fix any issues that may arise. The team also gathers feedback from users to identify areas for improvement.

CONCLUSION:

We learnt about the different types of process models and justified the most suitable life cycle model for project execution in our case study.