**EXPERIMENT-6**

**Aim: Explain the software development scenario using SAFE**

**Objectives:**

• Brief introduction about Scaled Agile Framework and Write one scenario.

**Theory:**

What is SAFE (Scaled Agile Framework)?

Scaled Agile Framework (SAFE) allows you to apply lean-agile practices at the enterprise level. It provides a simple and lightweight experience for software development. It is a set of organizations and workflow patterns intended to guide enterprises for scaling lean and agile practices. It is divided into three segments which are Team, Program and portfolio.

SAFE framework allows team for,

• Implementing Lean-Agile software and systems in enterprise level

• It’s based on Lean and Agile principles.

• It gives detailed guidance for work at the enterprise Portfolio, Value Stream, Program, and Team.

• It’s designed to meet the needs of all stakeholders within an organization.

**Scenario Title: "Agile Transformation at Tech Innovations Inc."**

**Introduction:**

Tech Innovations Inc. is a fast-growing technology company specializing in developing cutting-edge software solutions. As the demand for their products grows, they realize the need to adopt a more structured approach to software development to maintain pace and ensure quality. They decide to implement the Scaled Agile Framework (SAFE) to streamline their processes and scale effectively.

**Scenario Overview:**

Tech Innovations Inc. embarks on an agile transformation journey by implementing SAFe across its software development teams. The scenario follows the company's transition from traditional development practices to the SAFe framework.

**Key Elements of SAFe Implementation:**

Agile Release Trains (ARTs) Formation:

Tech Innovations Inc. organizes its development teams into Agile Release Trains (ARTs), each focused on delivering value within a specific product domain. Teams are cross-functional and include developers, testers, designers, and product owners. Program Increment (PI) Planning:

The company conducts its first PI Planning event, bringing together teams from different ARTs to align on priorities and plan work for the upcoming program increment. During PI Planning, teams break down features into user stories, estimate effort, and identify dependencies. Backlog Refinement and Management:

Tech Innovations Inc. maintains a Program Backlog containing features and priorities across all ARTs. Teams participate in backlog refinement sessions to groom user stories and ensure clarity and readiness for implementation. Iterative Development and Integration:

Teams work in synchronized iterations, typically two-week sprints, focusing on delivering working software increments. Continuous integration and automated testing practices are adopted to ensure frequent and reliable integration of code changes. System Demos and Inspect and Adapt (I&A) Workshops:

At the end of each program increment, the company holds a System Demo where teams showcase their work to stakeholders and gather feedback. This is followed by an Inspect and Adapt (I&A) workshop where teams reflect on their performance, identify improvement opportunities, and adjust their processes for the next increment.

**Benefits of SAFe Implementation:**

1.Enhanced Collaboration: SAFe fosters collaboration and communication among teams, resulting in better alignment and shared understanding of goals and priorities.

2.Increased Productivity: The structured approach of SAFe, including iterative development and regular feedback loops, accelerates the delivery of value to customers.

3.Improved Quality: Continuous integration and automated testing practices ensure that software releases are of high quality and meet customer expectations.

4.Business Alignment: SAFe helps Tech Innovations Inc. align its software development efforts with business objectives, ensuring that resources are invested in the right areas.

**Conclusion:**

Through the adoption of the Scaled Agile Framework (SAFe), Tech Innovations Inc. successfully transforms its software development processes, achieving greater agility, collaboration, and efficiency. By embracing SAFe principles, the company is well-positioned to meet the evolving demands of the market and deliver innovative solutions to its customers.