Fun 4
PAGE NO:
DATE:

Name: Ananya Prasad
Reg No: 20BCE10093

TUTORIAL 1

Perform a case study on the project management approach used in various software industries.

Some of the most common project management approaches used in the software industry include :

* Waterfall: It is a traditional, linear approach to project management that is well suited to software development. It emphasizes flexibility and customer collaboration and is often implemented using methodologies such as Scrum or Kanban

* DevOps: It is a culture and set of practices that emphasizes collaboration and communication between development and operation teams.
It is designed to reduce the time and effort required to take software from development to production.
Others include Kanban, Scaled Agile Framework and Scrum

* Agile: Agile is a flexible and iterative approach to project management that is well suited to software development. It emphasizes flexibility and customer collaboration and is often implemented using methodologies such as Scrum.

* Scrum: Scrum is an agile framework. It focuses on teamwork, flexibility and rapid iteration. It is an approach to project management that is often used in software development

PAGE NO.:
DATE:

Let us consider here a company, US-based, Fortune 100 company providing insurance products and services to clients in North America.

Challenge was to to decrease time-to-market in response to competitive pressures and its expanding product line.
They set aggressive goals to reduce average production duration by approximately 50% and improve internal customer satisfaction by 25% over a three-year period.
The project management environment at the time was rigid, depending almost entirely on traditional phase-based deliverable schedules, with heavy development technology.

Solution

The client adopted the Scrum framework and other agile product techniques, hoping to benefit from the shorter period promised by an iterative approach.
In adopting agile practices and techniques as part of this, the organisation was set to introduce radically new management practices to a traditionally trained project management community, with an emphasis on early and frequent delivery of value to end-users

During the beginning stages of this initiative, PM solutions become an integral part of an internal group that provided agile coaching to teams employing agile development practices, coupled with training tailored to their specific environment.

Results

After 18 months of mentoring and coaching, a number of significant results were released:

- Average project duration was reduced by 20% approximately, for a net saving of nearly $5 million.
- Customer satisfaction improved nearly 30%, 18 months ahead of projections
- Project startup duration decreased from an average of 10 weeks to 3 weeks
- Time-to-first solution implementation decreased from an average of 20 weeks to 7 weeks
- 90% of projects adopting agile practices and techniques now deliver the desired value to end-users on time and within initial budgets - by contrast, with traditional approaches, only 50% of projects delivered desired value on-time and within initial budgets

Approximately 15% of the client's portfolio of projects has now adopted some form of agile project management

2 List various tools used to estimate the risk analysis based on cost and time parameters

* Monte Carlo Simulation: This method uses probability distributions to estimate the potential range of outcomes for a project, taking into account the uncertainty and variability of various project parameters

* PERT (Program Evaluation and Review Technique): This technique uses a network diagram to model the dependencies between project tasks and estimate the expected completion time and potential risks for each task

* EVM (Earned value management): This method uses a combination of budget, schedule and scope data to evaluate a project's performance and can be used to identify potential cost and schedule overruns.

* Decision Tree Analysis: This tool helps to visualise the potential outcomes of different decisions and identify the best course of action based on cost time and other factors.

* Risk Register: It is a document or tool that captures and tracks identified risks, their likelihood and impact, the response plans and the status of each risk.

* Sensitivity analysis: It helps to identify how changes in key input variables impact the overall project risk by simulating different scenarios

3. Types of project management activities to control development process

→ Planning and defining project goals and objectives
* set clear goals
* determine scope
* create project plan
* outline the steps and resources needed to achieve goals

→ Create a project schedule and timeline
* A detailed timeline - start and end dates
* set milestones and deadlines

→ Assigning and managing project tasks and responsibilities
* Assign tasks and responsibilities to team members
* Monitor progress
* Provide guidance and support

→ Managing and monitoring project progress and performance:
* Moniter progress
* Adjust timeline to be on track
* revien the performance of the team

→ Identifying and addressing project risks and issues
* Identify potential risks and issues
* Address the issues and risks
* risk management plan.

→ Communicate with stakeholders
* team members, clients ; talk

→ Manage project resources, including budget and personnel.
* manage equipment and matriales
* control project costs and budget

→ Controlling and adjusting project scope
* Monitor and control scale.
* proper documentation, if changes made.
* Inform all stakeholders

→ Implemen quality assurance and control measures
* regular quality checks

→ Closing and evaluating the projects overall success
* post project review
* collection of feedback.
* Identify areas of improvement

— x — x — x — x — x —