NORTH SOUTH UNIVERSITY

Project Proposal

Spring 2023 - CSE 498R

Project Name : A Systematic Review of Scrum in Software development

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Background:

Scrum is a widely used Agile methodology for software development that is designed to enable teams to work together effectively and efficiently to deliver high-quality products. However, despite its popularity, there are still challenges and limitations associated with Scrum that can impact its effectiveness.

This research paper aims to explore the challenges and limitations of Scrum methodology and propose ways to improve it. The paper will focus on identifying the key issues faced by teams using Scrum, analyzing the root causes of these issues, and proposing solutions to overcome them.

Objectives:

- To identify the challenges and limitations of Scrum methodology
- To analyze the root causes of these challenges and limitations
- To propose ways to improve Scrum methodology
- To evaluate the effectiveness of the proposed solutions

Methodology:

The research will be conducted using a mixed-methods approach, combining both quantitative and qualitative data collection and analysis techniques. The following methods will be used:

- ### Literature review:

  A comprehensive review of existing literature on Scrum methodology and Agile software development will be conducted to identify the challenges and limitations of Scrum.

- **Survey:**

  An online survey will be distributed to software development professionals to gather quantitative data on the challenges faced by Scrum teams.

- **Root cause analysis:**

  An in-depth analysis will be conducted to identify the root causes of the challenges and limitations of Scrum methodology.

- **Proposed solutions:**

  Based on the findings from the survey and root cause analysis, solutions will be proposed to improve Scrum methodology.

Expected Outcomes:

The research paper is expected to generate the following outcomes:

- A comprehensive understanding of the challenges and limitations of Scrum methodology
- A detailed analysis of the root causes of these challenges and limitations
- A set of proposed solutions to improve Scrum methodology
- An evaluation of the effectiveness of the proposed solutions

Gantt Chart:

The following Gantt chart outlines the timeline for the research project:

Task	Start Date	End Date	Duration

Literature review	04/04/2023	04/18/2023	2 weeks
Survey Design	04/19/2023	04/23/2023	1 week
Survey Distribution	04/24/2023	05/01/2023	1 week
Data Collection and Analysis	05/02/2023	05/16/2023	2 weeks
Root Cause Analysis	05/17/2023	05/23/2023	1 week
Proposed Solutions	05/24/2023	05/30/2023	1 week
Drafting of research paper	05/31/2023	06/01/2023	2 days

Justification:

This research project is important because Scrum is one of the most widely used Agile methodologies for software development. However, there are still challenges and limitations associated with Scrum that can impact its effectiveness. Identifying these challenges and proposing solutions to overcome them can help software

development teams improve their processes, increase collaboration, and deliver high-quality products more efficiently. This research paper aims to provide software development teams with practical solutions to improve their Scrum processes and overcome the challenges they face.

Conclusion:

In conclusion, the proposed research project aims to identify the challenges and limitations of Scrum methodology and propose ways to improve it. The research will be conducted using a mixed-methods approach, combining both quantitative and qualitative data collection and analysis techniques. The research paper is expected to generate a comprehensive understanding of the challenges and limitations of Scrum methodology, a detailed analysis of the root causes of these challenges and limitations, a set of proposed solutions to improve Scrum methodology, and an evaluation of the effectiveness of the proposed solutions. This research project is important because Scrum is one of the most widely used Agile methodologies for software development, and identifying and overcoming its limitations can help software development teams improve their processes, increase collaboration, and deliver high-quality products more efficiently.