UTM

UNIVERSITI TEKNOLOGI MALAYSIA

SECD 2613

ANALYSIS DAN REKABENTUK SYSTEM

Phase 2 Project: Task Management System

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SECTION 16

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1.0 Project Overview

This project management system can accept and accommodate projects and tasks in education and project management. The interaction with the team members allows them to get an update on the progress of the same functions, as there is a chat system. This project must facilitate the ease of assignment of work and monitoring of the progress of the same and foster a collaborative environment amongst the members of the team; it must also emulate features that are unique to educational requirements, such as the submission of assignments and the tracking of the student's progress.

2.0 Problem Statement

1. Inefficient Task Management:

   Poor Task Management:
   Most of the integrated tools in task management today require their users to work with and across different applications exclusively meant for communication, tracking tasks, and reporting progress, respectively. This often raises the chances of miscommunication and fragmentation.

   Manual Updates:
   Project managers and team members need to update the latest status manually regarding the task to stay in sync with the project status, which is often very time-consuming and is prone to errors.

2. Poor Communication Channels:

   Due to the use of different communication tools, most of the existing systems are developed outside, such as a mailing app or a chatting app, which does not integrate into the system for task management. This does not allow for real-time collaboration and instant feedback. When integrated communication is not available, there is a delayed response from other team members, leading to slow movement of projects that do not meet their deadlines.

3. Poor Visibility and Accountability:

   Very little transparency and visibility exist in a traditional project. It is difficult to diagnose problems or to track milestone achievement because, in most typical conventional projects, the owners and other team members cannot easily see where the project is.

3.0 Proposed Solutions

FlowB

Propose solution that we have brainstorm is FlowB (FlowBoard). FlowB is a task management system designed to improve efficiency and collaboration in project management and educational settings.

Key Features:

- Integrated Task Management: Centralized platform with automated real-time updates.
- Enhanced Communication: Built-in chat system and real-time notifications.
- Improved Visibility: Progress tracking with hierarchical task assignments.
- Educational Tools: Easy assignment distribution, grading, and feedback.
- Flexible Roles: Dynamic role assignment and role-based permissions.
- User-Friendly Interface: Intuitive design with essential features.
- Scalable: Optimized for large teams and growing user bases.

4.0 Information Gathering Process

4.1 Technique Applied

We have applied the following techniques in information gathering:

- Interviews: Conducted with potential users (students, educators, project managers) to understand their needs and pain points.
- Questionnaires: Distributed to a broader audience to gather quantitative data on current task management practices and challenges.
- Observations: Analysed existing task management workflows to identify inefficiencies and areas for improvement.

4.2 Summary from Methods Used

- Synopsis of the Interview

To get qualitative insights, we spoke with 15 kids and 10 educators through interviews. The necessity of integrated communication tools, the capacity to track job progress, and streamlined task assignment procedures are some of the main conclusions.

- Summary of Questionnaire

A poll involving one hundred people was carried out. According to the findings, 80% of users want improved progress monitoring tools, and 75% of users find it difficult to communicate with the current systems.

5.0 Requirement Analysis (Based on AS-IS Analysis)

5.1 Current Business Process (Scenarios, Workflow)

In the current systems:

- Assignments are given with no proper integrated tracking.
- Communication is through separate lines, primarily through emailing and messaging apps.
- Progress tracking is very rare or not even available. Hence the need to frequently follow up, check what is happening, and the status of the follow-up, the method of submission of assignments and following up on the same learning platform.

5.2 Function Requirements

- Input: user credentials, task information, communication messages, submission of assignments.
- Process: Creating Project, task allotment, send and receive task.
- Output: Task status report, communication threads, status reports, assignment feedback.

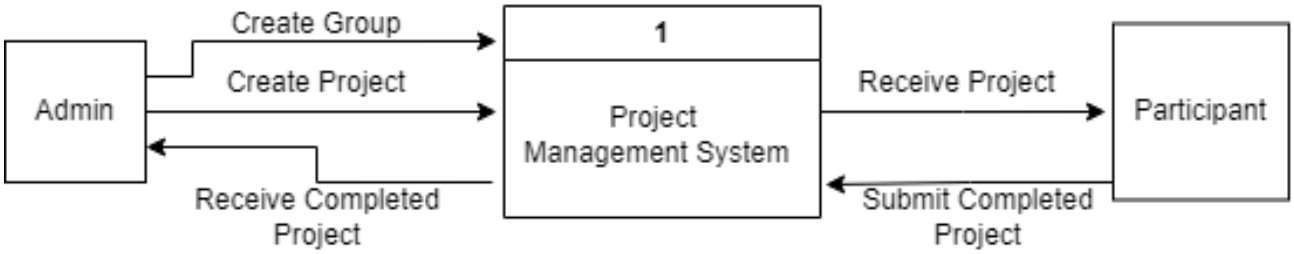
5.3 Nonfunction Requirements Performance and Control

- Performance: The system shall support many users concurrently with minimal delays about communication/information updates.

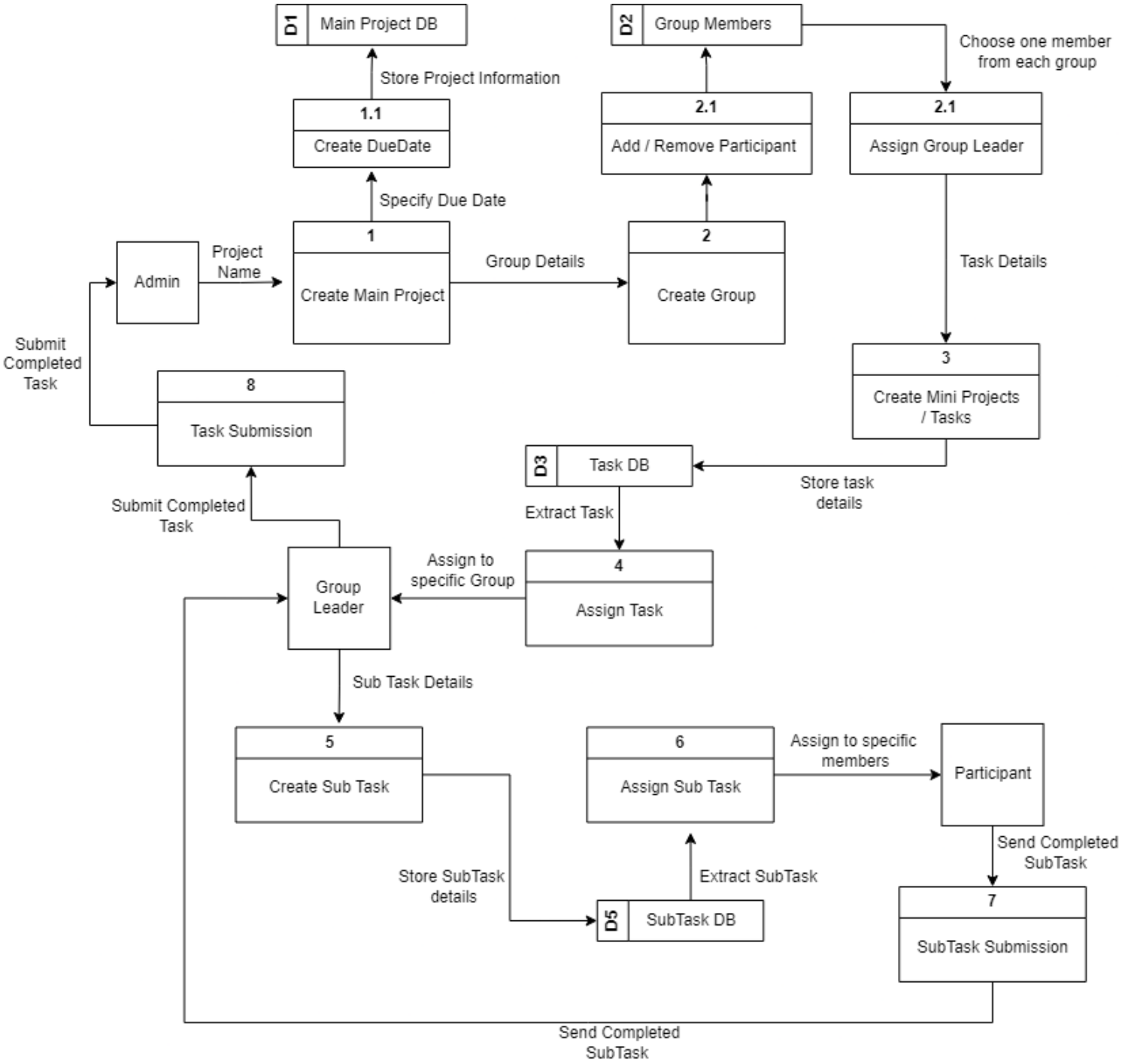
- Control: It will also ensure data security and privacy, especially any form of educational records and project data.

5.4 Logical DFD AS-IS System

5.4.1 Context Diagram



5.4.2 0 Diagram



5.4.3 Child Diagram

6.0 Summary of the Requirement Analysis Process

Our requirement analysis was rigorous by taking inputs from all stakeholders about the application through the interview process that included questionnaires and observations. This showed an urgent need for integrated communication along with efficient follow-up of the progress of the task and pretty much streamlined project management. These must be the functional and non-functional requirements, which will be transposed by the uncovered circumstances found within the insights and will drive the development of our Task Management System.