Umm Al-Qura University

College of Computers

Software Engineering Department

TL TOOL

Group members:

Aisha Alssulami 444002832

Ghala Alqarni 444000585

Nujood Alreshi 444002239

Joory Halabi 444000428

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1. Introduction

1.1. Purpose

The Time Logging (TL) tool project aims to meet the demand for efficient time management in organizations by providing a robust solution for tracking, recording, and managing employee work hours and activities. Developed by a software production company, the TL tool seeks to offer a competitive alternative to existing solutions, catering particularly to organizations in need of effective time control software.

This software requirements specification document serves as a comprehensive guide for the development team, outlining both functional and non-functional requirements in detail. Its purpose is to ensure a shared understanding of the TL tool's objectives and functionalities, facilitating a smooth and coherent development process.

1.2. Objective

The software project is titled "Time Logging (TL) Tool."

It aims to achieve the following objectives: streamline time tracking and management processes for organizations, enhance client billing and invoicing procedures, and facilitate customized time reporting for employees.

To fulfill these objectives, the TL tool encompasses the following software components:

- Time Recording System: A software product enabling employees to log their work hours accurately, including time spent on projects, breaks, and non-work activities. This system offers manual entry and stopwatch functionality for recording start and end times efficiently.
- Client Management Module: A software product designed to identify and manage clients for whom work is performed. This module facilitates billing, invoicing, and payment tracking, incorporating hourly rates and fixed expense components. Additionally, it distinguishes billable and non-billable activities.
- Customized Reporting Feature: A software component allowing users to generate tailored time reports with various reporting details, such as suppressed or added information, to meet specific employee requirements.
- Time Record Management System: A software product enabling easy editing of entered time records and providing robust sorting, searching, and filtering capabilities for efficient data management and retrieval.

2. General Description

2.1. Target user
- Project Stakeholders: Ensure alignment with business goals and provide resources and support.
- Project Managers: Oversee the project to meet budget, schedule, and client requirements.
- Developers: Implement functional requirements and ensure software performance.
- Product Managers: Define product vision and prioritize features based on market needs.
- Testers: Identify and report bugs to ensure the software meets quality standards.
- Marketing and Sales Teams: Promote and sell the TL tool, gathering market feedback.
- Customer service: Assist with data entry and support tasks related to the TL tool.
- Managers: Monitor project timelines and productivity and generate reports.
- Employees: Log work hours and manage daily tasks using the TL tool.
- Finance Staff: Handle billing, invoicing, and payment tracking for financial accuracy.
- Clients: Receive services tracked by the TL tool and benefit from accurate invoicing and reporting.

3. SPECIFIC REQUIREMENTS

3.1. FUNCTIONAL REQUIREMENTS
The TL_Tool shall perform the following specific tasks:

3.1.1. Time Recording:
- The TL_Tool shall allow manual entry of start and end times for work periods.
- The TL_Tool shall include a stopwatch feature to track time in real-time.

3.1.2. Client Management:
- The TL_Tool shall support adding and managing client information.
- The TL_Tool shall enable associating projects and tasks with specific clients.

3.1.3. Billing and Invoicing:
- The TL_Tool shall generate invoices based on recorded time and predefined billing rates.
- The TL_Tool shall track client payments.
- The TL_Tool shall calculate work expenses, including hourly rates and fixed costs.

3.1.4. Reporting:
- The TL_Tool shall generate detailed and customizable time reports.
- The TL_Tool shall export reports in various formats, including PDF and Excel.

3.1.5. Data Modification:
- The TL_Tool shall allow the employees to easily modify previously entered time records.
- The TL_Tool shall support adding comments or notes to time entries.

3.1.6. Data Management:
- The TL_Tool shall provide advanced sorting, searching, and filtering of time records.

3.2. NON-FUNCTIONAL REQUIREMENTS

3.2.1. Performance
- Response Time: The system should respond quickly to user inputs, ideally within 20 seconds, to ensure a smooth user experience.
- Efficiency: The tool should handle large volumes of data efficiently without significant delays, supporting simultaneous users without performance degradation.

3.2.2. Usability
- Usability testing shall be conducted to assess the intuitiveness and ease of navigation of the interface for all user types, including employees, managers, and accounting staff.
- baseline assessment shall be conducted to establish the current level of usability, serving as a reference point for defining usability goals.

3.2.3. Availability
- The system must be available to users 99% of the time during all business hours each month, with minimal downtime.

3.2.4. Scalability
- Quantify scalability requirements using specific, measurable metrics over 3,000 of concurrent users, data volume Expandable and 20 sec response times.

3.2.5. Security
- Sensitive data, including employee details, client information, and financial records, must be securely stored and transmitted. Implement encryption protocols and access controls to ensure the confidentiality, integrity, and availability of this data.
- Define specific threats that the system must be protected from, including unauthorized access, data breaches, and malware attacks.

3.2.6. Reliability
- The TL tool should demonstrate reliability and availability, ensuring it is accessible whenever users need to access it, with minimal downtime or disruptions.
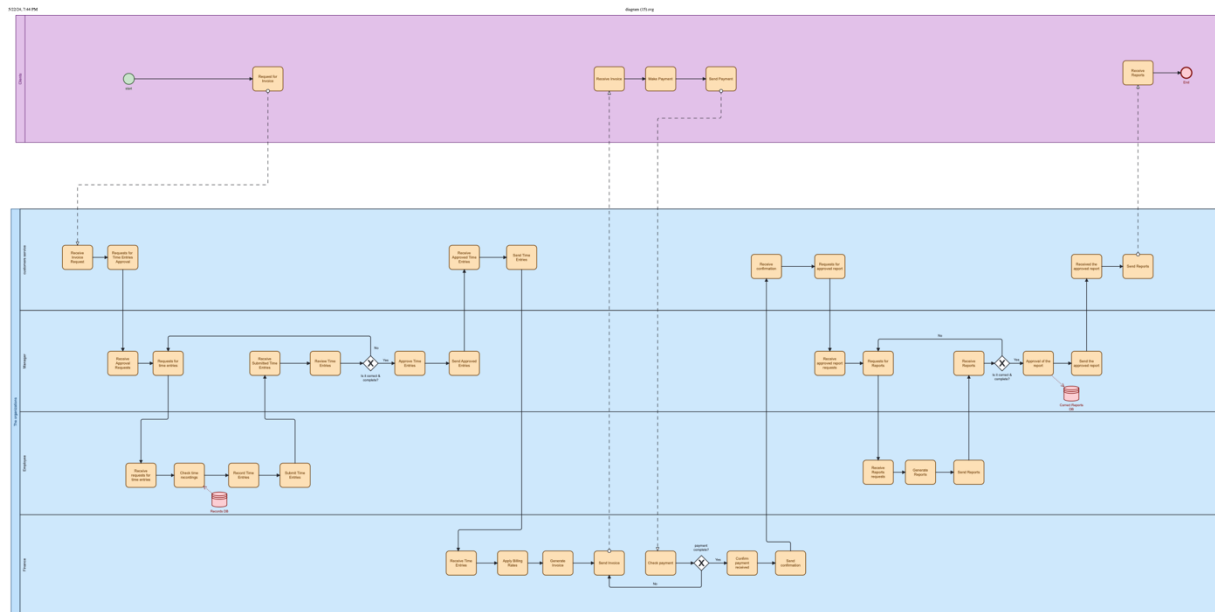
4. Diagram

4.1. BPNM

Figure 1BPNM Diagram
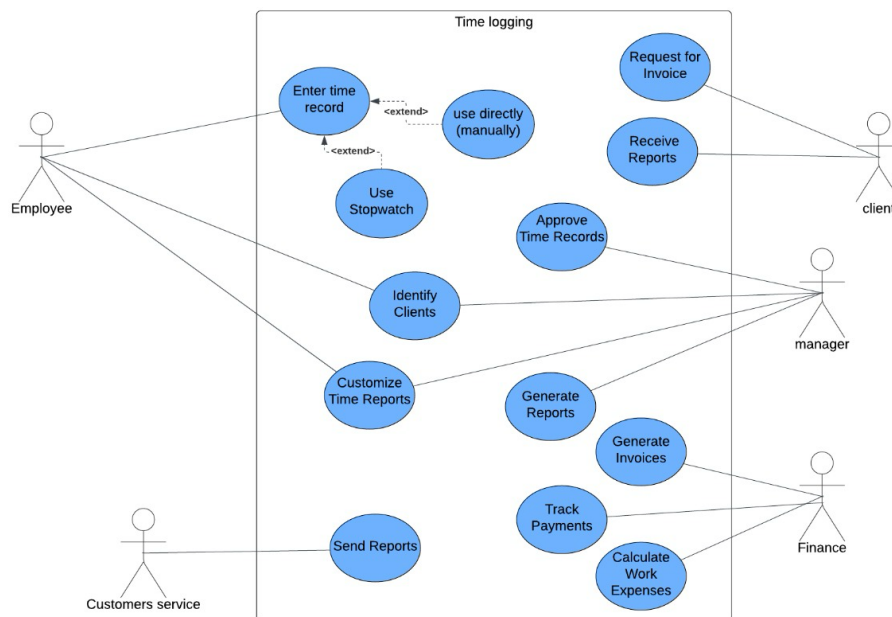
4.2. UML diagram

Figure 2 UML Diagram

5. Technical website

5.1. Create the browser & Selection of tools

The first step is to create a browser and choose the appropriate tools, which are essential steps in creating a technical website.

URL: https://sourceforge.net/projects/tltool/

Figure 3 Create the browser & Selection of tools.

5.2. Customize website information

Customizing website information includes a site title, a short summary, and a full description...etc of the website

Figure 4 Customize website information.

Additional Project Details

Operating Systems

Linux, Android, Apple iPhone, Mac, Windows

Languages

French, English, Chinese (Simplified), Arabic

Intended Audience

Telecommunications Industry, Developers, Quality Engineers, Architects, Security Professionals, Management

Database Environment

Python Database API, SQL-based

Registered

2 days ago

Figure 5 Customize website information 2

5.3. Customize user permission

Customizing user permissions is essential for effective access management and ensuring robust website security.

Figure 6 Customize user permission.

5.4. Use of tool

Using specialized tools can greatly help us promote the site as owners. Here, we highlight two specific tools: the Ticket and Wiki tools.

5.4.1. Tickets tool

Ticket tools are crucial for efficient project management. They offer a structured way to handle all your project's tasks and issues such as Organized workflow, improved communication, and prioritization.
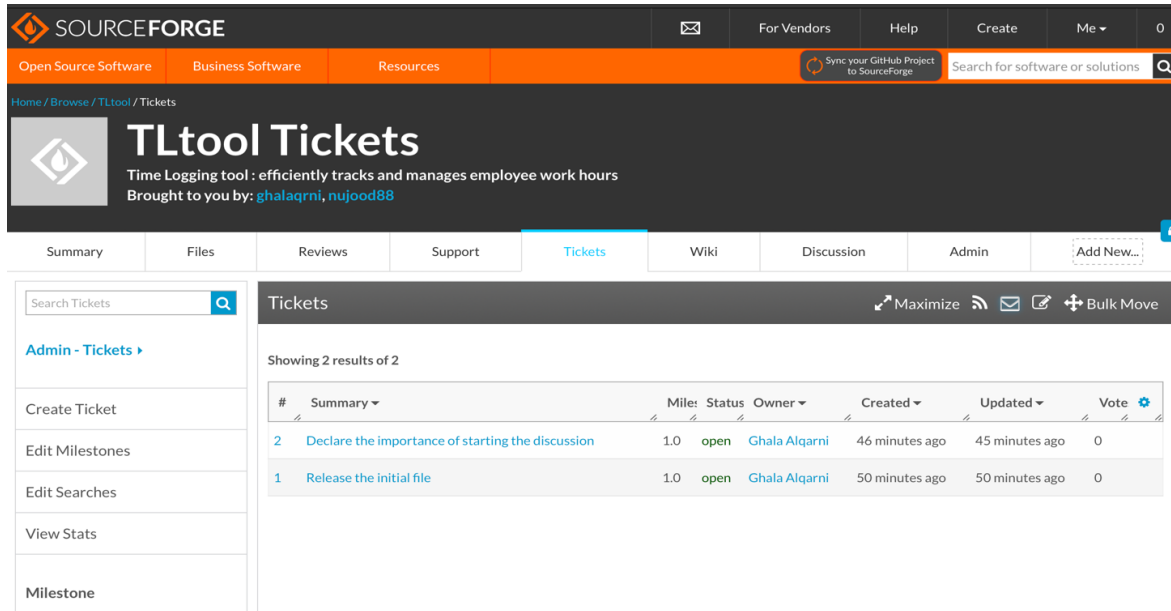

Figure 7 Tickets tool

5.4.2. Wiki tool

Wikis are great tools for creating collaborative documentation, among its features: Easy to contribute, Collaboration and a centralized knowledge base.
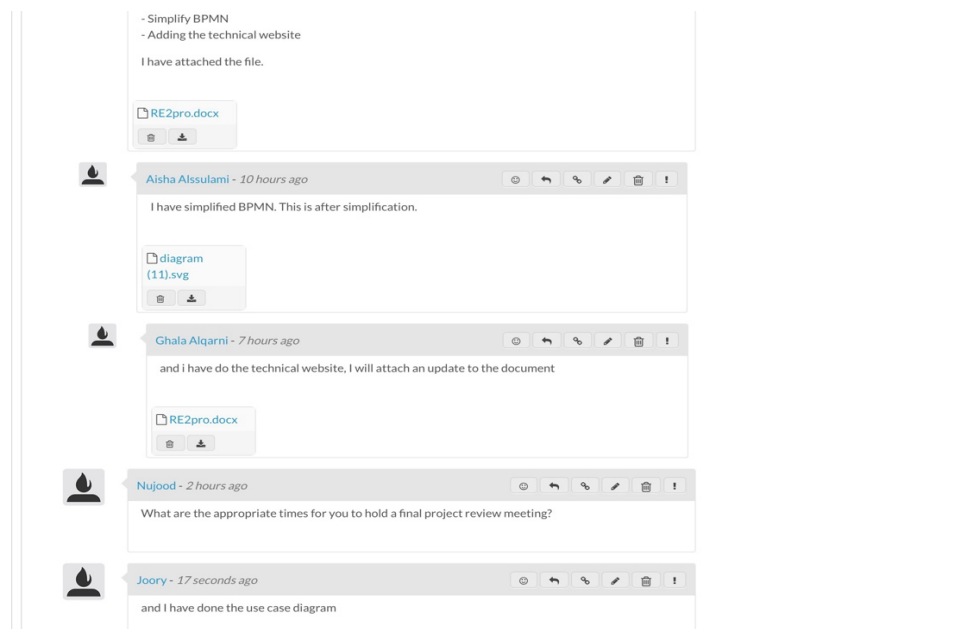

Figure 8 Wiki tool