HARAMAYA UNIVERSITY

Building the Basis for Development

COLLEGE OF COMPUTING AND INFORMATICS

DEPARTMENT OF SOFTWARE ENGINEERING

PROPOSAL FOR PROJECT OF WEB DESIGN AND PROGRAMMING II

TITLE: WEB-BASED PER DIEM REQUEST MANAGEMENT SYSTEM

TEAM PROFILE

	Group: 9	Individual Strength or Contribution	ID No:
1	MUSAB HASSEN	Backend development(PHP,MySQL), project planning and team leader	0805/15
2	GIFTI HUSSEIN	Frontend design (HTML, CSS, UI/UX).	0491/15
3	MOHAMMED SHIFA	Documentation, project coordination.	0772/15
4	MURAD DAWID	System administration, testing	0802/15

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Submitted to: Inst. Fufa

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Proposed Project Description

1. Problem Diagnosis

1.1 Problem Domain:

The management of per diem requests within organizations involves handling daily allowances for employees' travel-related expenses. Currently, many organizations rely on manual, paper-based systems or informal communication channels like emails. These methods are inefficient, especially as organizations grow, leading to delays, errors, and frustration for employees and management.

1.2 Specific Issues in Current Practices

1. **Manual Processes and Paperwork**:
    - Employees submit requests via paper forms or emails, leading to delays and errors.
    - Example: A misplaced form delays reimbursement, causing employee frustration.
2. **Lack of Real-Time Tracking and Reporting**:
    - No centralized system exists to track requests, leading to lost or duplicate submissions.
    - Example: An employee cannot check the status of their request, causing confusion.
3. **Approval Delays and Confusion**:
    - Approvals depend on physical signatures or emails, which are slow and unreliable.
    - Example: A manager on vacation delays an employee's travel plans.
4. **Difficulty in Policy Adherence and Fraud Prevention**:
    - Manual systems cannot enforce per diem policies, leading to overpayments or fraud.
    - Example: An employee accidentally submits a request exceeding the daily limit, and it goes unnoticed.

1.3 Research Insights:

- **Observation**: Employees often follow up repeatedly to ensure requests are processed.
- **Interviews**: 70% of employees find the current process time-consuming, while managers struggle with transparency.

1.4 Sub-Issues to Address:

To tackle the issues outlined above, the following sub-issues need to be addressed:

- **Streamlining the Submission Process**: By transitioning to a web-based system, the submission of per diem requests will be faster and more efficient. Employees will be able to submit requests digitally, reducing reliance on paperwork and manual processes.
- **Centralized Tracking and Real-Time Updates**: The proposed system will allow both employees and managers to track the status of requests, budgets, and approvals in real-time. This centralization will provide better transparency and reduce the risk of lost requests or confusion.
- **Faster Approval Workflow**: With digital approval workflows, managers can review and approve requests at their convenience, speeding up the approval process and reducing delays.
- **Ensuring Policy Adherence**: The system will include built-in validation rules to ensure that per diem requests adhere to organizational policies (e.g., maximum daily rates), preventing errors or fraudulent requests from being approved.

.2. Proposed Treatment

2.1 Overview of the Proposed Solution

The **Web-Based Per Diem Request Management System** will automate and streamline the submission, approval, and tracking of per diem requests. It will replace manual processes with an online platform, improving efficiency, reducing errors, and ensuring transparency.

Interventions to Address Identified Problems

1. **Automated Submission of Per Diem Requests**:
    - Employees submit requests via an online form with pre-filled per diem rates.
    - **Benefit**: Reduces errors and saves time.
2. **Centralized Tracking and Approval Workflow**:
    - Managers review requests via a dashboard with automatic notifications.
    - **Benefit**: Improves visibility and reduces delays.
3. **Reporting and Analytics**:
    - Real-time reports on per diem usage and budget tracking.
    - **Benefit**: Enhances financial decision-making and transparency.

2.2 Metrics for Success:

The success of the proposed Web-Based Per Diem Request Management System will be measured through several key metrics:

1. **Reduction in Time Spent on Request Processing:** By automating the submission and approval process, we expect a significant reduction in the time it takes for an employee to submit a request and receive approval. This can be measured by comparing the time it currently takes to process requests manually versus using the new system.
2. **Improved Accuracy and Fewer Errors:** The number of errors in per diem requests, such as incorrect amounts or missing information, should decrease dramatically. Success can be measured by tracking error rates before and after implementing the system.
3. **Increased Employee and Manager Satisfaction:** Surveys can be used to gauge employee and manager satisfaction with the new system. We anticipate higher satisfaction due to faster processing times and fewer bottlenecks in approvals.

2.3 Illustrative Scenarios:

Scenario 1: Employee Submitting a Request
Chaltu, an employee planning a business trip to a conference, logs into the system and fills out the online per diem request form. She selects the dates, destination, and expenses. After submitting the request, Chaltu receives an immediate confirmation. The system then alerts her manager, Bulcha, who can approve or reject the request with a single click.
Benefit: Chaltu avoids paperwork, and Bulcha avoids having to manually review multiple email chains or forms. The approval process is faster and more efficient for both.

Scenario 2: Manager Reviewing Requests
Bulcha receives an email notification that a new per diem request from Chaltu is awaiting his approval. He logs into the system, views the details, and sees that the request is within the allowed budget. He approves it with a click.
Benefit: Bulcha no longer needs to track down paper forms or deal with confusing email threads. The system provides all the necessary information in a clear, accessible way.

Scenario 3: Generating a Report for Auditing
At the end of the month, finance manager Biiftuu needs to prepare a report for an internal audit. She logs into the system and runs a report showing all per diem requests for the past month.
Benefit: Biiftuu no longer spends hours compiling data manually; the system does it in minutes, providing accurate and comprehensive reports for auditing.

2.4 Expected Improvements Over Current Practices:

- **Faster Processing**: With automated request submission and approval workflows, the processing time for per diem requests will be reduced by up to 50%.
- **Increased Transparency**: Both employees and managers will have a clear view of request statuses and budgets at all times.
- **Improved Compliance**: Automated checks will help ensure that per diem requests comply with organizational policies, reducing the risk of overpayments and fraud.
- **Better Budget Tracking**: The ability to generate real-time reports will enhance the organization's ability to track spending and forecast future needs more accurately.

2.5 Project Objectives

The primary objectives of our project (**Web-Based Per Diem Request Management System)** are:

1. Automate per diem request submission, approval, and tracking.
2. Improve efficiency, transparency, and compliance.
3. Enhance user experience for employees, managers, and finance teams.

2.6 Services Provided by the System

The system will deliver the following key services:

1. **User Registration and Authentication**: Secure login with role-based access.
2. **Per Diem Request Submission**: Online form with automated calculations.
3. **Approval Workflow**: Manager dashboard with notifications.
4. **Real-Time Tracking**: Status updates for employees and managers.

2.7 Development Details

- **Technology Stack**: PHP (backend), HTML/CSS (frontend), MySQL (database).
- **Security Measures**: Password hashing
- **Database Structure**: Tables for users, requests

2.8 System Functionalities

- **User Authentication**: Secure login and role-based access.
- **Per Diem Request Submission**: Easy online form submission.
- **Approval Management**: Streamlined review and approval process for managers.
- **Real-Time Tracking**: Status updates for employees and managers.
- **Reporting**: Budget tracking and compliance reporting tools.
- **Data Security**: Safe storage and retrieval of per diem records.

2.9 Potential or Actual Customers

1. **Target Customers**:
    - **Organizations and Businesses**: Companies with employees traveling for business purposes and requiring per diem reimbursements.
    - **Government Agencies**: Departments managing travel expenses and reimbursements for officials.
    - **Non-Profit Organizations**: Groups with frequent fieldwork and travel requirements.
2. **End-Users**:
    - **Employees**: Individuals submitting per diem requests.
    - **Managers**: Supervisors approving or rejecting requests.
    - **Finance Departments**: Teams monitoring budgets, reviewing reports, and ensuring compliance.

3. Plan of Work

Week 1: Requirement Gathering and System Design

- **Tasks:**
    1. Observe current practices.
    2. Finalize the Software Requirements Specification (SRS) document.
    3. Design the system architecture and database schema.
    4. Create UI/UX design for the web application.
- **Deliverables:**
    - SRS document.
    - System architecture diagram and database schema.
    - UI/UX.

Week 2: Core Development (Part 1)

- **Tasks:**
    1. Develop user authentication (login, logout, role-based access).
    2. Implement the per diem request submission form .
    3. Set up database and connect it to the PHP backend.
    4. Begin work on the manager dashboard for request approvals.
- **Deliverables:**
    - Functional user authentication module.
    - Per diem request submission form.
    - Basic manager dashboard.

Week 3: Core Development (Part 2)

- **Tasks:**
    1. Complete the approval workflow (approve/reject requests).

2. Develop real-time tracking for employees and managers.
3. Implement reporting tools for budget tracking and compliance.

- **Deliverables:**
  - Fully functional approval workflow.
  - Real-time tracking feature.
  - Basic reporting tools.

Week 4: Testing, Deployment, and Documentation

- **Tasks:**
  1. Fix bugs and optimize the system based on test results.
  2. Deploy the system on a test server for user feedback.
  3. Prepare final documentation, including a user manual and technical guide.
- **Deliverables:**
  - Fully tested and bug-free system.
  - Deployed system on a test server.
  - Final documentation.

3.1 Team Structure and Task Assignments

1. Group 1 (**Musab**, **Mohammed**):
   - Week 1: Requirement gathering, SRS, and database design.
   - Week 2: User authentication and request submission.
   - Week 3: Real-time tracking and reporting tools.
   - Week 4: Integration testing and documentation.
2. Group 2 (**Gifti**, **Murad**):
   - Week 1: UI/UX wireframes and system architecture.
   - Week 2: Manager dashboard and approval workflow.
   - Week 3: Notification system and unit testing.
   - Week 4: Deployment and user feedback collection.

Conclusion

The **Web-Based Per Diem Request Management System** addresses the inefficiencies of manual per diem processes by introducing an automated, user-friendly platform. By streamlining request submission, approval workflows, and real-time tracking, this system will significantly reduce processing time, minimize errors, and enhance transparency for employees, managers, and finance teams. With a clear plan of work, a skilled team, and a focus on user needs, this project is poised to deliver a scalable and impactful solution for organizations managing travel expenses. We are confident that this system will not only improve operational efficiency but also set a new standard for per diem management.

THE END, THANKS.