**Business Requirements Document (BRD)**

**1. Project Overview**

Organizations often face challenges in efficiently tracking income, expenses, and managing financial activities across various projects and employees. This manual process can lead to financial mismanagement, reporting errors, and a lack of real-time insights into the organization’s financial health. This project aims to develop a comprehensive financial management platform that enables organizations to track income, expenses, project costs, and employee-related expenses while providing data-driven insights for better decision-making.

**2. Objectives**

* Enable organizations to manage and track income and expenses effectively.
* Provide a platform to monitor project-specific financials and employee expenses.
* Deliver real-time financial analytics to aid in decision-making.
* Streamline financial reporting processes.

**3. Scope**

This project will include:

* **Organization microservices**: Manage and store organization details and overall financial data.
* **Projects microservices**: Handle project-specific income, expenses, budgets, and reports.
* **Employee microservices**: Manage employee details, salary, and expense tracking.
* **Analytical microservices**: Generate financial reports, charts, and analytics for decision-making.

**4. Key Features and Requirements**

**4.1 Organization Management**

* **Income and Expense Tracking**: Organizations can input and track all income and expenses, both at a global level and per project.
* **Financial Overview Dashboard**: Display income, expenses, and budget performance for each organization.

**4.2 Project Management**

* **Project Creation**: Organizations can add projects with a defined budget, timeline, and assign employees.
* **Budget Tracking**: Track the project's allocated budget and its expenses in real-time.
* **Project-Specific Financial Reports**: Generate financial reports specific to each project, showing budget utilization and performance.

**4.3 Employee Management**

* **Employee Creation**: Add and manage employee details including salary, role, and assigned projects.
* **Employee Expense Tracking**: Track and report employee-related expenses such as travel, project expenses, and reimbursements.

**4.4 Analytics and Reporting**

* **Financial Analytics**: Real-time financial data analysis to show income vs. expenses, budget utilization, and profitability per project.
* **Custom Reports**: Organizations can generate custom reports for a defined period, detailing expenses, income, and project financial performance.

**4.5 Notifications and Alerts**

* **Budget Threshold Alerts**: Notifications when project expenses approach or exceed allocated budgets.
* **Income and Expense Alerts**: Notifications for significant income or expenses added to the system.

**5. Functional Requirements**

**5.1 Frontend (React & TypeScript)**

* **Dashboard**: Display organization-wide financial summaries including income, expenses, and budget utilization.
* **Project and Employee Forms**: User-friendly forms to add or update project and employee details.
* **Reports Interface**: A page where users can generate and view detailed financial reports.

**5.2 Backend (Node.js & TypeScript)**

* **Organization Microservices**: Manage organization data, financial records, and reports.
* **Project Microservices**: Handle project creation, budget tracking, and project-specific financials.
* **Employee Microservices**: Manage employee details, salary, and expense tracking.
* **Analytical Microservices**: Generate financial reports and provide data analytics based on input data.

**6. Non-Functional Requirements**

* **Performance**: The system must handle multiple requests from large organizations and provide real-time analytics without delays.
* **Security**: Secure the organization’s financial data and personal information, including encryption of sensitive data.
* **Scalability**: The system should scale easily as the number of projects, employees, and financial records grows.

**7. User Stories**

* **As an organization manager**, I want to track the total income and expenses so that I can maintain a balanced financial overview.
* **As a project manager**, I want to track project expenses and budget utilization so that I can monitor the project's financial health.
* **As an employee**, I want to submit my expense reports for approval so that I can be reimbursed for my work-related expenses.
* **As a financial analyst**, I want to generate custom financial reports so that I can present insights to the leadership team.

**8. Stakeholders**

* **Organization Managers**: Responsible for overseeing the organization’s finances.
* **Project Managers**: In charge of ensuring projects stay within budget.
* **Employees**: Submit expenses for reimbursement and tracking.
* **Financial Analysts**: Generate and review financial reports for decision-making.

**9. Timeline**

* **Phase 1 (5 days)**: Develop organization and project management features (income, expense tracking, project budget creation).
* **Phase 2 (4 days)**: Develop employee management and expense tracking.
* **Phase 3 (3 days)**: Implement analytics and reporting functionalities.
* **Phase 4 (2 days)**: Testing, deployment, and final polish (bug fixes, UI/UX improvements).

**10. Success Metrics**

* **Increased accuracy** in tracking income and expenses, reducing manual errors.
* **Real-time financial insights**, enabling better decision-making for project and organization-level financial management.
* **Improved financial reporting** capabilities, reducing the time needed to generate detailed financial reports.



