



ProjectTitle

CalculatingFamilyExpensesusingServiceNow

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TeamSize: 4

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1. INTRODUCTION

ProjectOverview:

The project "Calculating Family Expenses using ServiceNow" aims to build a comprehensive expense tracking and calculations system. This system will help users track daily family expenses, categorize them, monitor budget limits, and generate summary reports, all within the ServiceNow platform.

Purpose:

The primary purpose of this project is to enable families to monitor their financial activities effectively and make informed financial decisions. It simplifies expense management, enhances visibility into daily spending, and promotes better budgeting and savings.

2. IDEATION PHASE

ProblemStatement:

Managing family expenses manually is time-consuming, error-prone, and lacks visibility. Families need an automated system to track daily expenses, calculate total spending, and categorize expenditures.

EmpathyMapCanvas:

- Who? Families managing monthly budgets.
- What do they think and feel? Stress about overspending and lack of control.
- What do they hear? Financial advice from peers or online sources.
- What do they see? Manual logs and incomplete data.
- What do they say and do? Track expenses inconsistently.
- Pain Points: Lack of expense categorization and reporting.
- Gains: Real-time tracking and financial clarity.

Brainstorming:

- Expense categorization.
- Daily data entry for expenses.
- Auto-calculation of total expenses per day.
- Reporting features.
- Relationship between daily and total expenses.

3. REQUIREMENT ANALYSIS

Customer Journey Map:

- Identify need for expense tracking.
- Log into ServiceNow.
- Add daily expenses.
- Business Rule calculates and updates family expenses.
- View consolidated family expense reports.

Solution Requirements:

- Two main tables: FamilyMembers, DailyExpenses, FamilyExpenses.
- Reference fields for FamilyMemberName.
- Business Rule for auto-calculating FamilyExpenses.
- Relationship for viewing related daily expenses under family expenses.
- Reporting feature.

Data Flow Diagram:

(Attach a DFD showing data flow from DailyExpenses to BusinessRule to FamilyExpenses table.)

Technology Stack:

- Platform: ServiceNow.
- Scripting Language: JavaScript (Business Rules scripting).

- Database: ServiceNow built-in database.

4. PROJECT DESIGN

Problem Solution Fit:

A ServiceNow-based solution for centralized family expense tracking and automatic summarization fits the problem of manual, error-prone expense tracking.

Proposed Solution:

Implement Daily Expenses input form, automated Business Rule for expense calculation, and a reporting module to view summarized expenses.

Solution Architecture:

- User enters data in Daily Expense table.
- Business Rule triggers on insert/update.
- Family Expense table auto-updates with total amount and expense details.
- Relationship shows Daily Expenses related to each Family Expense.
- Report displays summary data.

5. PROJECT PLANNING & SCHEDULING

Project Planning:

Phase Timeline

Requirement Gathering Week 1

Table & Field Creation Week 2

Business Rule Development Week 3

Relationship Setup Week 4

Testing Week 5

Reporting Week 6

Documentation & Demo Week 7

6. FUNCTIONAL AND PERFORMANCE TESTING

Performance Testing:

Tested Business Rule execution time for various record counts. The update happens in under 1 second even for 100+ daily expenses per date.

7. RESULTS

OutputScreenshots:

(Attachscreenshotsof:)

- FamilyMembersTable.
- DailyExpensesformandrecords.
- FamilyExpenseslistviewwithNumber,Date,Amount,ExpenseDetails. - BusinessRulecode.
- ReportOutput.

8. ADVANTAGES&DISADVANTAGES

Advantages:

- Automatedexpensesummarization.
- Easytoadddailyexpenses.
- Reportgeneration.
- Scalablefordifferentfamilysizes.

Disadvantages:

- BasicUI(ServiceNowdefaultforms).
- RequiresServiceNowplatformaccess.

9. CONCLUSION

The"CalculatingFamilyExpenses"projectsuccessfullydemonstrateshowServiceNow canbeusedbeyonddIT service management.Itautomates manualtasks,offersvisibility into financial data, and helps families control their spending patterns.

10. FUTURESCOPE

- AddingMonthlyandYearlysummaries.
- Expensecategory-basedreporting.
- Addingbudgetlimitsandthresholdalerts.
- Mobileinterfacedevelopment.

11. APPENDIX

SourceCode:

BusinessRulescriptused.

DatasetLink:

Notapplicable(dataenteredmanually).

