



## ProjectTitle

CalculatingFamilyExpensesusingServiceNow

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**TeamSize:** 4

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### 1. INTRODUCTION

#### ProjectOverview:

The project "Calculating Family Expenses using ServiceNow" aimsto build a comprehensiveexpensetrackingandcalculationsystem.Thissystemwillhelpusers 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 isto enable familiesto monitor their financial activities effectivelyand make informed financial decisions. It simplifies expense management,enhancesvisibilityintodailyspending,andpromotesbetterbudgetingand savings.

## 2. IDEATION PHASE

### Problem Statement:

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.

### Empathy Map Canvas:

- 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.

### DataFlowDiagram:

(AttachaDFDshowingdata flowfromDailyExpensestoBusinessRuletoFamily Expenses table.)

### TechnologyStack:

- Platform:ServiceNow.
- ScriptingLanguage:JavaScript(BusinessRulescripting).
- Database:ServiceNowbuilt-indatabase.

## 4. PROJECTDESIGN

### ProblemSolutionFit:

AServiceNow-basedsolutionforcentralizedfamilyexpensetrackingandautomatic summarization fits the problem of manual, error-prone expense tracking.

### ProposedSolution:

ImplementDailyExpensesinputform,automatedBusinessRuleforexpensecalculation, and a reporting module to view summarized expenses.

### SolutionArchitecture:

- UserentersdatainDailyExpensestable.
- BusinessRuletriggersoninsert/update.
- FamilyExpensestableauto-updateswithtotalamountandexpensedetails.
- RelationshipshowsDailyExpensesrelatedtoeachFamilyExpense.
- Reportdisplayssummarydata.

## 5. PROJECTPLANNING&SCHEDULING

### ProjectPlanning:

Phase	Timeline
RequirementGathering	Week1
Table&FieldCreation	Week2
BusinessRuleDevelopment	Week3
RelationshipSetup	Week4
Testing	Week5
Reporting	Week6
Documentation&Demo	Week7

## 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

### Output Screenshots:

(Attach screenshots of:)

- FamilyMembersTable.
- DailyExpenses form and records.
- FamilyExpenses list view with Number, Date, Amount, Expense Details.
- BusinessRule code.
- Report Output.

## 8. ADVANTAGES & DISADVANTAGES

### Advantages:

- Automated expenses summarization.
- Easy to add daily expenses.
- Report generation.
- Scalable for different family sizes.

### Disadvantages:

- Basic UI (ServiceNow default forms).
- Requires ServiceNow platform access.

## 9. CONCLUSION

The "Calculating Family Expenses" project successfully demonstrates how ServiceNow can be used beyond IT service management. It automates manual tasks, offers visibility into financial data, and helps families control their spending patterns.

## 10. FUTURE SCOPE

- Adding Monthly and Yearly summaries.
- Expense category-based reporting.
- Adding budget limits and threshold alerts.
- Mobile interface development.

## 11. APPENDIX

### SourceCode:

BusinessRulescriptused.

### DatasetLink:

Notapplicable(dataenteredmanually).

### GitHub&ProjectDemoLink:

(YoucanuploadyourdemovideotoGoogleDriveorYouTubeandpastethelinkhere.)