

# Project Report:

# Calculating Family Expenses Using Service Now

**Platform:** ServiceNow (Global Application)

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**Guided Project:** Calculating Family Expenses Using ServiceNow

## 1. Introduction

The **Family Expenses Management** system is a custom-built ServiceNow application designed to streamline and automate household financial tracking. By utilizing custom database tables and automated backend logic, the application allows users to log daily expenditures and ensures data is synchronized across the family's financial records.

## 2. Development Lifecycle & Source Control

To maintain a clean development environment, all configurations were captured in a dedicated **Update Set**.

- **Name:** Family Expenses
- **State:** In progress
- **Application Scope:** Global

The screenshot shows the ServiceNow interface for managing an update set. The title bar reads "Family Expenses | Update Set". The main area displays the "Update Set - Family Expenses" configuration. The left side contains fields for Name (Family Expenses), State (In progress), Parent (empty), Release date (empty), Install date (empty), Installed from (empty), and Description (empty). The right side shows metadata: Application (Global), Created (2026-02-17 23:34:16), Created by (admin), and Merged to (empty). At the bottom, there are "Update" and "Delete" buttons, and a "Related Links" section with options like "Make This My Current Set", "Merge With Another Update Set", and "Scan Update Set". Below that is a navigation bar with tabs for "Customer Updates", "Update Set Logs", "Child Update Sets", and "Install History". A search bar at the bottom allows filtering by "Created" date.

## 3. Database Design (Table Schema)

The application architecture is based on two primary custom tables to separate raw data entry from processed family records.

## 3.1 Family Expenses Table (u\_auto\_populated)

This table acts as the primary repository for consolidated expense data.

- **Key Fields:** Number, Family Member Name, Date, and Sys ID.

The screenshot shows the ServiceNow Table - Family Expenses page. At the top, there are tabs for All, Favorites, History, Workspaces, and Admin. The title bar says "Table - Family Expenses". Below the title bar, there are fields for Label ("Family Expenses") and Name ("u\_auto\_populated"). There are also buttons for Delete, Update, and Delete All Records. A message at the top states: "A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)".

Below the header, there are tabs for Columns, Controls, and Application Access. The Columns tab is selected. It shows a table titled "Dictionary Entries" with columns: Column label, Type, Reference, Max length, Default value, and Display. The table contains the following data:

Column label	Type	Reference	Max length	Default value	Display
Updates	Integer	(empty)	40		false
Updated	Date/Time	(empty)	40		false
update	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	true
Family Member Name	Field Name	(empty)	80		false
Date	Date	(empty)	40		false
Created by	String	(empty)	40		false

## 3.2 Daily Expenses Table (u\_daily\_expenses)

Designed for high-frequency daily logging by various family members.

- **Key Fields:** Number, Family Member Name, Date, and Expense (Integer).

The screenshot shows the ServiceNow Table - Daily Expenses page. The layout is identical to the Family Expenses page, with tabs for All, Favorites, History, Workspaces, and Admin, and a title bar for "Table - Daily Expenses". The "Label" field is set to "Daily Expenses" and the "Name" field is set to "u\_daily\_expenses".

Below the header, there are tabs for Columns, Controls, and Application Access. The Columns tab is selected, showing a "Dictionary Entries" table with the following data:

Column label	Type	Reference	Max length	Default value	Display
Updates	Integer	(empty)	40		false
Updated by	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	false
Family Member Name	Field Name	(empty)	80		false
Expense	Integer	(empty)	40		false
Date	Date	(empty)	40		false

## 4. Technical Implementation (Business Logic)

To automate the interaction between tables, a **Business Rule** was implemented to manage record synchronization.

- **Name:** Family Expenses BR
- **Table:** Daily Expenses [u\_daily\_expenses]
- **Logic:** The script utilizes GlideRecord('u\_family\_expenses') to query and process records based on the entry date (u\_date).

The screenshot shows the ServiceNow Business Rules interface. The top navigation bar includes 'Business Rules' and 'Form Design'. The main area displays the 'Family Expenses BR' rule. It has fields for 'Name' (Family Expenses BR), 'Table' (Daily Expenses [u\_daily\_expenses]), 'Application' (Global), 'Active' (checked), 'Advanced' (checked), and 'Web Services' (unchecked). Below these are tabs for 'When to run', 'Actions', 'Advanced', and 'Web Services'. The 'Advanced' tab is selected, showing a condition field and a script editor. The script contains code to execute a rule, query the 'u\_family\_expenses' table, and handle the next record.

## 5. Support & Knowledge Management

To assist users, the application is supported by a robust **Knowledge Base** containing guides on system security and configuration.

- **Workstation Security Standard:** Outlines endpoint security and hardening.
- **Phishing Awareness:** Guides on avoiding common security scams.
- **Technical Setup:** Includes guides for Internet Explorer settings and Android development configuration

The screenshot shows the ServiceNow Knowledge Catalog interface. It lists several articles under the category 'Knowledge & Catalog - Knowledge':

- Managing Settings in Internet Explorer 10 for Windows 8
- Workstation Security Standard
- Eclipse configuration for Android development
- Getting Around in Windows
- What are phishing scams and how can I avoid them?

Each article card displays its title, category, number, and update date.

## **6. Conclusion**

The project successfully demonstrates the ability to create a functional, automated household management tool within ServiceNow. By separating daily inputs from master records, the system ensures data integrity while providing an easy-to-use interface for all family members.