ST.JOSEPH’S COLLEGE OF ENGINEERING AND TECHNOLOGY , THANJAVUR

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CALCULATING FAMILY EXPENSES USING SERVICE NOW

- **TEAM ID**: NM2025TMID07829

TEAM SIZE: 3

TEAM LEADER: SRIRAM V

TEAM MEMBER: SANTHOSH G

TEAM MEMBER: SHIYAM S

PROBLEM STATEMENT:

Managing household expenses manually often leads to errors, lack of clarity, and difficulty in budgeting. Families face challenges in tracking multiple categories of expenses such as food, rent, utilities, education, and healthcare. There is a need for a digital solution that automates expense calculation and provides real-time financial insights for better management.

OBJECTIVE:

The main objective of this project is to develop a comprehensive Family Expense Calculation System using ServiceNow.

This system aims to:

- Help users record, categorize, and track their daily or monthly expenses.
- Provide budget-setting and real-time expense tracking.
- Offer reporting and visualization tools for better financial decision-making.
- Ensure a user-friendly and scalable platform adaptable to families of different sizes and income levels.

SKILLS REQUIRED:

1. ServiceNow Development (Table creation, Form design, Flow Designer, UI Builder)
2. Scripting in ServiceNow using JavaScript/Glide Script
3. Data Management & Reporting (Report Designer, Performance Analytics)
4. Problem Solving and Analytical Thinking
5. User Interface Design

TASK INITIATION:

- ServiceNow Development (Table creation, Form design, Flow Designer, UI Builder)
- Scripting in ServiceNow using JavaScript/Glide Script
- Data Management & Reporting (Report Designer, Performance Analytics)
- Problem Solving and Analytical Thinking
- User Interface Design

FEATURES:

- Add, edit, and delete expense records.
- Categorize expenses (food, rent, travel, etc.).
- Automatic total expense calculation.
- Monthly and yearly expense reports.
- Budget limit alert system.
- Dashboard with charts and graphs.
- Secure data storage in ServiceNow.
- User-friendly interface for easy tracking.

MODEL IMPLEMENTED:

1. Data Model

- Table 1: u_family_expense → Stores family name, total expense, and monthly budget.
- Table 2: u_daily_expense → Stores date, amount, category, and description of each expense.
- Reference field links both tables (Family ID).
- Ensures structured data storage and easy retrieval.

2. Process Model

- User enters expenses through a ServiceNow form.
- Data is saved automatically in the u_daily_expense table.
- Flow Designer or Business Rule calculates total monthly expense.
- System compares total with budget and triggers alert if limit exceeded.
- Reports and dashboards update automatically with new data.

3. Logical Model

- Uses Flow Designer for automation and notifications.
- Business Rules handle calculations and validations.
- UI Policies control form visibility and mandatory fields.
- Client Scripts used for real-time calculations in the form.

4. Functional Model

- Expense entry and update.
- Monthly budget setup.
- Automatic total computation.
- Alert message or email when expenses exceed budget.
- Report and dashboard generation.

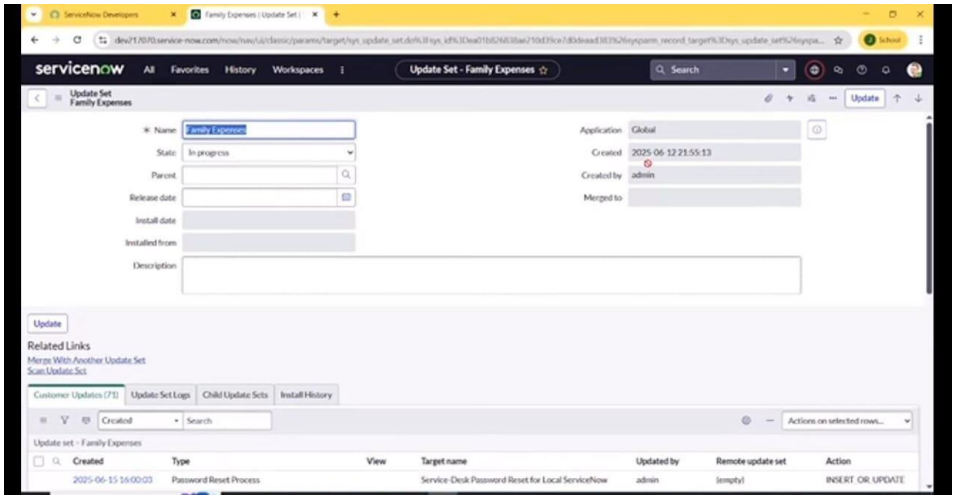
5. Output Model

- Dashboard showing total and category-wise expenses.
- Pie chart and bar chart visualizations.
- Monthly and yearly summary reports.
- Budget alert notifications.

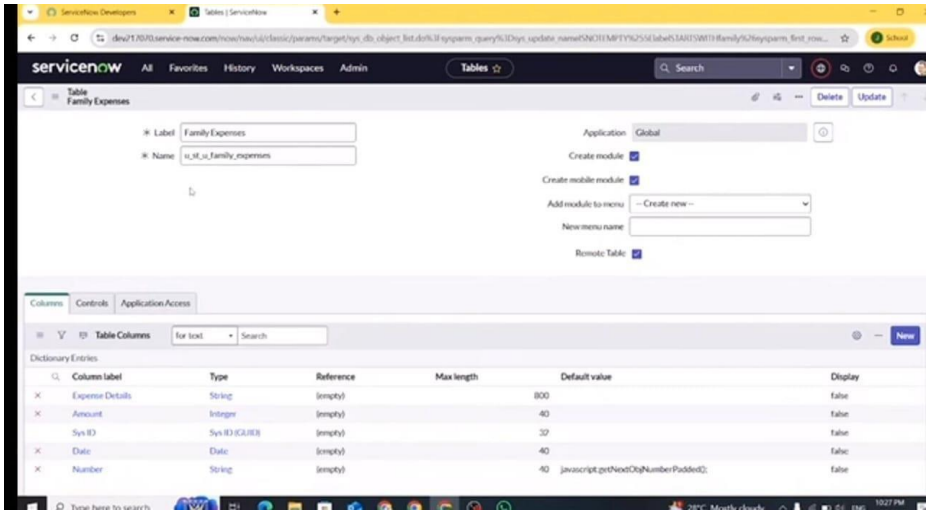
IMPLEMENTATION STEPS:

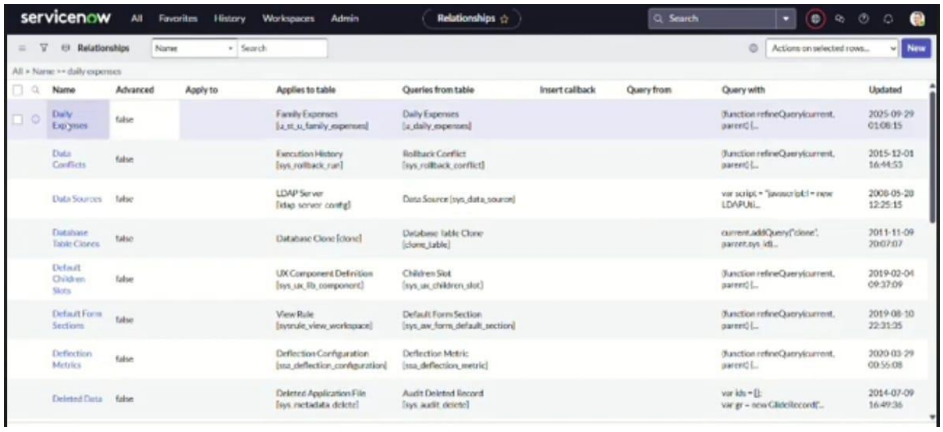
STEP 1: Creation of New Update Set:

STEP 2: Creation of Table:



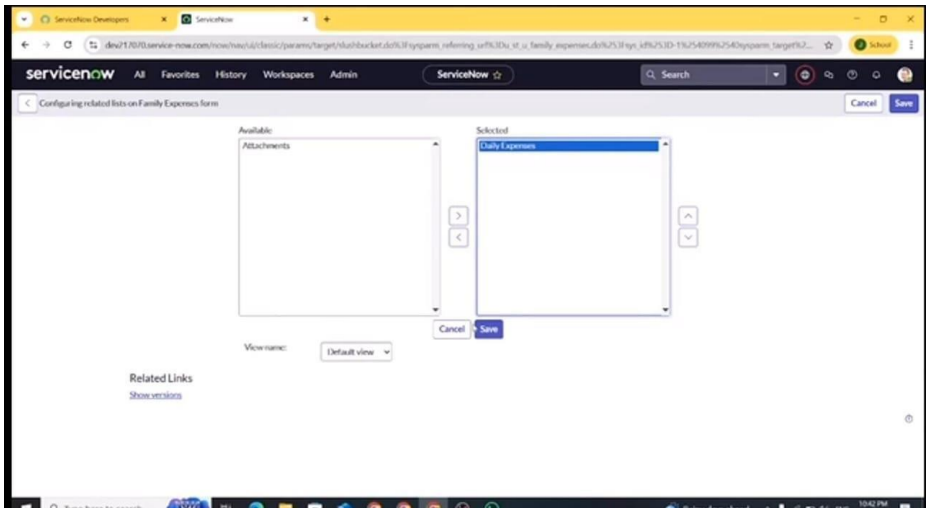
STEP 3:Creation of table(Family Expenses)



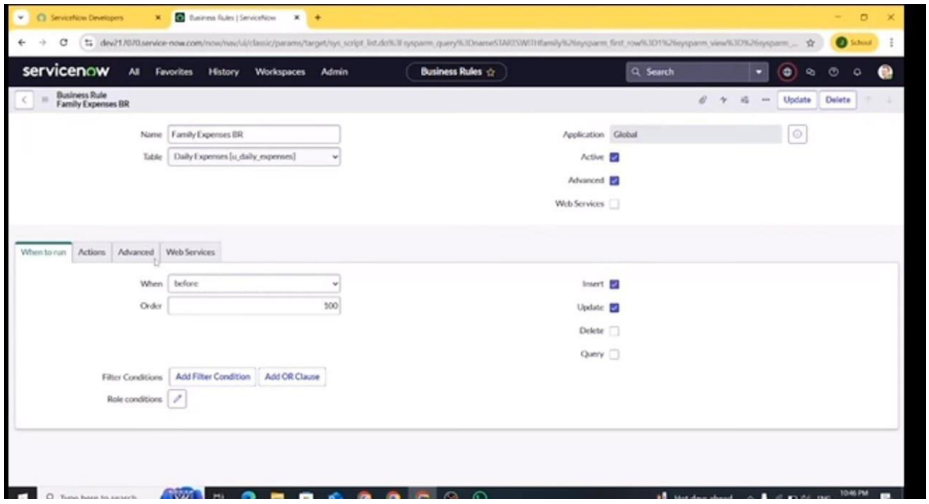


STEP 3:Creation of relationship

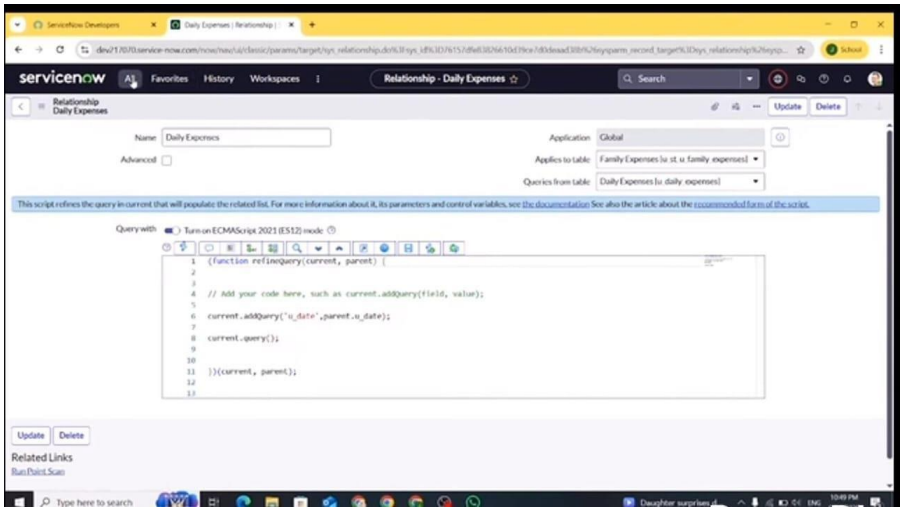
Configuring Related List on Family Expense



STEP 4: Creation of business roles



STEP 5: Configure the Relationship



OUTCOME:

The project “Calculation of Family Expenses using ServiceNow” successfully developed an automated system to manage and monitor family expenses efficiently. The application allows users to record daily expenses, categorize them, and automatically calculate monthly and yearly totals. Reports and dashboards were created to display category-wise spending and overall budget usage. The system also provides alerts when expenses exceed the set budget limit, helping users control their spending. This project improved the accuracy, speed, and organization of expense tracking while providing a user-friendly interface. It also enhanced practical knowledge of ServiceNow tools such as table creation, form design, Flow Designer, and report generation.

CONCLUSION:

The Family Expense Calculation System on ServiceNow offers an easy and efficient way to manage household finances. With features like expense tracking, budget setting, and reporting, it helps users monitor spending and make informed financial decisions. The system's scalability and user-friendly interface ensure it supports families of all sizes, promoting better financial planning and control.