

PROJECT DESIGN PHASE

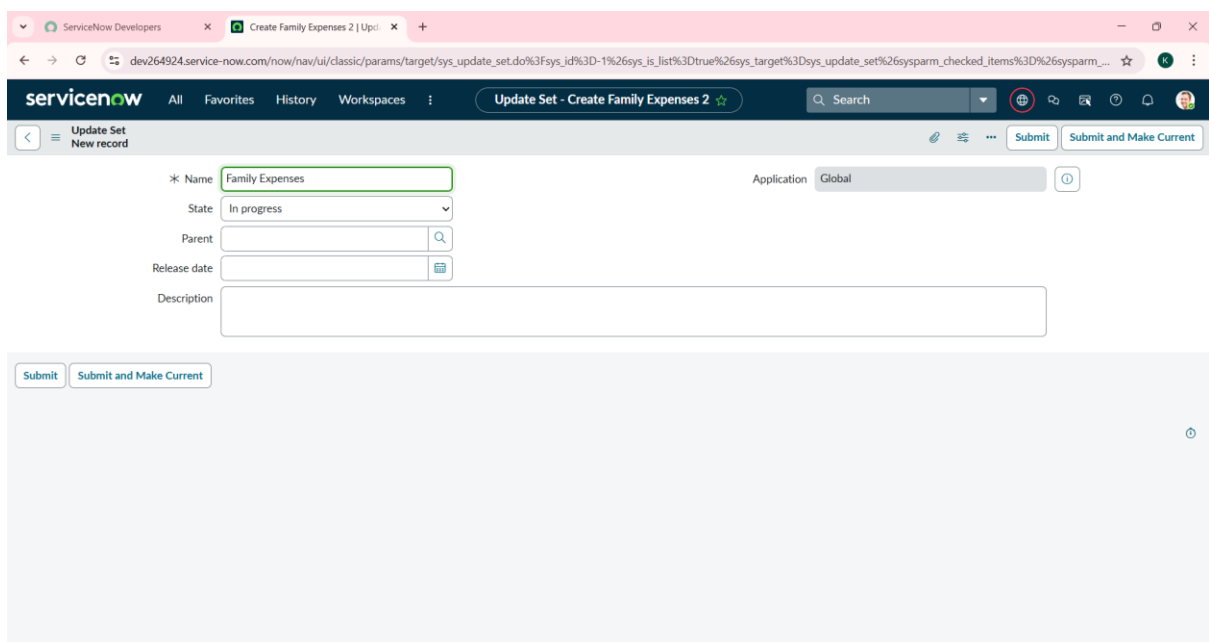
Date	01/11/2025
Team ID	NM2025TMID04001
Project Name	Calculating Family Expenses using Service Now

Introduction

The design phase focuses on creating the structure and layout of the Family Expense Calculation System. In this phase, the database tables, forms, workflows, and reports are designed using the ServiceNow platform.

Steps:

1. Creation of new update set:



The screenshot shows the ServiceNow interface for creating a new update set. The browser tabs indicate 'ServiceNow Developers' and 'Create Family Expenses 2 | Upd...'. The URL is a long alphanumeric string. The page title is 'Update Set - Create Family Expenses 2'. The breadcrumb trail shows 'Update Set' and 'New record'. The form fields are: 'Name' (Family Expenses), 'State' (In progress), 'Parent' (empty), 'Release date' (empty), and 'Description' (empty). The 'Application' dropdown is set to 'Global'. At the bottom, there are 'Submit' and 'Submit and Make Current' buttons.

Go to All >> In the filter search for Local Update set > click on New.

Enter the Details as:

Name : Family Expenses then click submit and make current

2.Table creation:

Family expenses table:

ServiceNow Developers

Family Expenses | Table | ServiceNow

dev264924.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3D1a1a65a3837c3210dc49ec80cead352%26sysparm_record_target%3Dsys_db_object%26sysparm_record_r...

servicenow

All Favorites History Workspaces Admin

Table - Family Expenses

Search

Delete Update Delete All Records

Table Family Expenses

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](#)

* Label

Application

* Name

Remote Table

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Updated by	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Expense Details	String	(empty)	800		false
Amount	Integer	(empty)	40		false
Created by	String	(empty)	40		false
Date	Date	(empty)	40		false
Created	Date/Time	(empty)	40		false
Updates	Integer	(empty)	40		false

Daily expenses table:

ServiceNow Developers

Daily Expenses | Table | ServiceNow

dev264924.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3Dd8ee1eb837c3210dc49ec80cead3a7%26sysparm_record_target%3Dsys_db_object%26sysparm_record_r...

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All Favorites History Workspaces Admin

Table - Daily Expenses

Search

Delete Update Delete All Records

Table Daily Expenses

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](#)

* Label

Application

* Name

Remote Table

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Comments	String	(empty)	800		false
Date	Date	(empty)	40		false
Created	Date/Time	(empty)	40		false
Updates	Integer	(empty)	40		false
Expense	Integer	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Updated by	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false

3. Creation of relationship:

1. Go to All >> In the filter search for Relationships >> Open Relationships

2. Click on New.

3. Enter the details:

Name : Daily Expenses

Applies to table : Select Family Expenses

Daily Expenses : Select Daily Expenses

4. Click Save.

ServiceNow Developers | Daily Expenses | Relationship | +

dev264924.service-now.com/now/nav/ui/classic/params/target/sys_relationship.do%3Fsys_id%3D7852bda383bc3210dc49ec80cead367%26sysparm_record_target%3Dsys_relationship%26sysparm_rec...

Relationship - Daily Expenses

Name: Daily Expenses

Advanced: ☐

Application: Global

Applies to table: Family Expenses [u_family_expenses]

Queries from table: Daily Expenses [u_daily_expenses]

This script refines the query in current that will populate the related list. For more information about it, its parameters and control variables, see [the documentation](#). See also the article about the [recommended form of the script](#).

Query with: ☒ Turn on ECMAScript 2021 (ES12) mode

```
1 (function refineQuery(current, parent) {
2
3
4 // Add your code here, such as current.addQuery(field, value);
5
6 current.addQuery('u_date', parent.u_date);
7
8 current.query();
9
10
11 })(current, parent);
```

Run Query Diagnostics Update Delete

Related Links

[Run Point Scan](#)

4. Creation of Business Rules:

1. Go to All >> In the filter search for Business Rules.

2. Under System Definition Select Business Rules then click on New.

3. Enter the Details:

Name : Family Expenses BR

Table : Select Daily Expenses

Check Advanced

The screenshot shows the ServiceNow Business Rule configuration page for 'Family Expenses BR'. The 'When to run' tab is selected, showing the rule is set to run 'before' with an 'Order' of 100. The 'Filter Conditions' section is empty, with buttons for 'Add Filter Condition' and 'Add OR Clause'. The 'Advanced' tab is also visible, showing the rule is 'Active' and 'Advanced'.

Business Rule Configuration:

- Name:** Family Expenses BR
- Table:** Daily Expenses [u_daily_expenses]
- Application:** Global
- Active:** ☒
- Advanced:** ☒

When to run:

- When:** before
- Order:** 100
- Filter Conditions:** (Add Filter Condition, Add OR Clause)
- Insert:** ☒
- Update:** ☒
- Delete:** ☐
- Query:** ☐

Configure the Relationship:

The screenshot shows the ServiceNow Relationship configuration page for 'Daily Expenses'. The 'Advanced' tab is selected, showing the relationship is set to 'Global' and 'Applies to table' is 'Family Expenses [u_family_expenses]'. The 'Queries from table' is 'Daily Expenses [u_daily_expenses]'. The 'Query with' section shows a script in ECMAScript 2021 (ES12) mode.

Relationship Configuration:

- Name:** Daily Expenses
- Application:** Global
- Advanced:** ☐
- Applies to table:** Family Expenses [u_family_expenses]
- Queries from table:** Daily Expenses [u_daily_expenses]

Query with: Turn on ECMAScript 2021 (ES12) mode

```

1 (function refineQuery(current, parent) {
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3
4 // Add your code here, such as current.addQuery(field, value);
5
6 current.addQuery('u_date', parent.u_date);
7
8 current.query();
9
10
11 })(current, parent);
  
```

Conclusion

The design phase successfully established the structure and layout of the Family Expense Calculation System in ServiceNow. During this phase, the tables, forms, and workflows were carefully planned to ensure smooth data flow and easy user interaction. The design provides a strong foundation for the development phase, ensuring that the system will function efficiently and meet user requirements for accurate expense tracking and reporting.