

## Project Design Phase Solution Architecture

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Team ID	LTVIP2025TMID20412
Project Name	Calculating Family Expenses using Service Now
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Maximum Marks	4 Marks

### Solution Architecture:

The *Calculating Family Expenses Using ServiceNow* project bridges the gap between the practical challenges families face in managing household expenses and the technology platform used to address these challenges. The solution architecture defines how ServiceNow's components are configured and integrated to deliver a functional, scalable, and user-friendly system.

### Purpose of the Solution Architecture

- **Identify the best technology configuration** on the ServiceNow platform to solve the problem of disorganized, manual household expense tracking.
- **Describe the system's structure** to stakeholders, showing how tables, relationships, forms, and automation work together.
- **Define system features**, development phases, and technical requirements to guide the solution's design and implementation.
- **Provide clear specifications** that ensure the solution can be built, managed, and extended effectively.

### Solution Structure

The architecture consists of:

- **Core Tables:**
  - *Family Expenses*: Captures family-level financial records.
  - *Daily Expenses*: Captures individual expense entries linked to a family record.
- **Relationships:**
  - Links Daily Expenses records to their corresponding Family Expenses records.
  - Supports related list views in forms for easy navigation.
- **Automation Components:**
  - Business Rules: Automate actions on record creation or update (e.g., budget alerts).
  - Number Maintenance: Generates auto-numbers with prefixes (MFE, DFE) for unique identification.
- **User Interface Elements:**
  - Custom Forms: Simplified data entry with logical field grouping.

- Related Lists: Embedded views for linked records.
- **Configuration Management:**
  - Update Sets: Track and migrate system configurations.

## Phases of Development

- Set up ServiceNow PDI and create update sets.
- Design and create tables, forms, relationships, and number maintenance configurations.
- Develop business rules and automation scripts.
- Perform testing and validation.
- Finalize documentation and deliverables.

## Specifications

- Built entirely within ServiceNow's low-code/no-code environment.
- Configurations aligned to ServiceNow best practices for scalability and maintainability.
- Ready for extension to include advanced reporting, dashboards, or additional automation as needed.

### Solution Architecture Diagram:

