# Domain Redirection

▶Presented By: Khadka Baniya

▶Date: 10 July 2025

► Employee Id: 14010551



#### Overview & Purpose



Domain redirection service: directs incoming requests from legacy domains to the correct target.



Purpose: validate and forward URLs seamlessly, returning 301 or 404 as appropriate.



Excel-based rules: maintain mappings (Source URL, Destination URL) in redirects.xlsx.

## **Technology Stack**



Programming Language: TypeScript



Web Framework: Fastify



JavaScript Libraries: Bun



Validation Library : Zod



Logging: Pino logger



Test framework: Vitest

#### **Features**

- Excel Rules: Easy to manage redirect rules by updating an Excel file.
  - Validation: Uses Zod to ensure only valid URLs are used.
    - Built-in Logging: Uses Fastify's Pino logger for request-aware logs.
      - ✓ Unit Tested: Covered with Vitest to test valid, invalid, and missing scenarios.
        - Graceful Server Shutdown: handles SIGINT/SIGTERM cleanly

## Working Flow

