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| **Project 1: Contact Registry Web App & APIs**  **Requirements:**  Develop a simple Java web application to catalog the following contact details:   * Full Name * Phone Number (MSIN) * Email Address * ID Number * Date of Birth * Gender * Organization   For each contact, the app should automatically generate and store:   * Masked Name (e.g., for John Doe, store John D.) * Masked Phone Number (e.g., 254711\*118) * Hashed Phone Number (SHA-256 hash)   Implement basic CRUD operations for contact data.  Develop REST API endpoints to perform CRUD operations on the contact data.  Create a SOAP API endpoint that allows querying contacts by organization name and returns a list of matching contacts. | |
| **Test Index** | **Requirement result with Screenshots** |
| 1a) | Rest API: Create one Contact record    No duplicates are allowed:    Request validation available: |
| 1b) | Rest API: Read one |
| 1c) | Rest API: Read All |
| 1d) | Rest API: Update |
| 1e) | Rest API: Delete |
| 1f) | Rest API: Search by Hashed Phone |
| 1g) | Rest API: Search by Masked Name & Masked Phone |
| 1h) | Rest API: Search by Organization |
| 1i) | SOAP Service:  WSDL    Request and Response on Soap UI |

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| **Project 2: Phone Directory Web App**  **Create a simple Java web application that allows users to look up contacts by consuming the Contact Registry API.**  **Requirements:**  Individual Contact Search - Users can search for a contact by providing either:   * Phone Number Hash * Masked Name & Masked Phone Number   Organization Contact Lookup - Users can retrieve a list of contacts for an organization by entering:   * Organization name. | |
| **Test Index** | **Results with Screenshots** |
| 2a) | Web UI: Search by    Results: |
| 2b) | Web UI: Search by    Results: |
| 2c) | Web UI: Search by organization    Results: |