**Phase III (Prototype Phase) – User Features, Repository & Publications Integration**

**Objective:**

To implement user authentication, role-based access, secure content download, repository and publication management features, and enhance the frontend with search and filtering functions.

**Prototype Phase Viva:**

**(A viva will be conducted for this phase after submission of this phase in which you will demo your work live to your supervisor)**

**Use ASP.NET same version that you used in phase II for backend work of this phase.**

**Step 1: Implement User Authentication & Role Management**

* Integrate frontend with login/register options.
* Define roles:
  + Admin: Full access to manage all content.
  + Registered User: Can download free publications, rate/comment, and view open-source repositories.
  + Guest: View-only access to non-premium content.

**Features to Include:**

* Registration/login/logout pages
* Email verification
* Password reset functionality
* Session-based access control

**Step 2: Repository Page**

* Display downloadable assets with two categories:
  + Create GitHub account for below tasks.
  + Free (Open Source) – Show Download from GitHub button.
  + Premium – Show Contact Admin button.
  + Sort the assets w.r.t domains.

**Each Repository Item Includes:**

* Title, description, GitHub URL, document preview
* Tags (e.g., Free, Premium)
* License type and version
* Access logic based on user role

**Step 3: Research & Publications Page**

* Create structure to show research papers:
  + Title, authors, domain, abstract, thumbnail/document/video preview
  + Download button for registered users
* Search and Filter Options:
  + Filter by domain (AI, ML, Cloud, etc.)
  + Search by author, keyword, or title

**Step 4: Admin Content Management Panel**

* Backend support for:
  + Upload/edit/delete Products, Solutions, Publications, Repositories
  + Manage user roles and block users

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**Instructions of Work and How to Submit**

**LMS Submission:**  
**Export your project with back end, make a zip folder and upload it on LMS. If you face storage issue, then you can reduce size by removing big files. Make sure keep original complete folder with you for viva.**

1. **Note:** If a student fails to submit project folder on LMS, he will receive **zero marks.**

**For Queries:**  
You can reach out to me via MS Teams at [**neelam-cs@outlook.com**](mailto:neelam-cs@outlook.com).