As part of HTD program, you must complete level 1 mocha assessment (after your LMS learning) and level 2 case study assessment.

Though you are in the middle of LMS learning, you are encouraged to start this case study in parallel & logically. Below is your case study details,

Case study**:  Client and Project Management**

* Add / Update Clients and should be able to add / update one or more projects under each client.
* Register new Client functionality should accept signed agreement as a mandatory attachment (System should accept only PDF)
* View Client and projects
* Cancel Projects.
* Notification (optional): Asynchronous email notification on successful Project creation and cancelation.

Expectations and Deliverables:

- REST API & ORM (Hibernate with JPA for Java / Entity Framework for MS) should be used to implement business logics.

- Angular / React latest version should be used to build user interfaces.

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| **Topics / Areas** | **Deliverables** |
| REST API with CRUD operation | **API:**  Proper use of HTTP methods, Parameters, Headers & response codes JSON should be used for request and response with proper input validation.  Basic Authentication  Proper exception handling  Average /Maximum number of requests to be processed: 10/50 request per sec. 98 % real-time operation should be completed within min 1 sec to max 5 sec  **Data Base:**  RDBMS design and DDL script  ORM implementation with Transaction management |
| Single page responsive - User Interface | Responsive UI integrated with APIs (Angular or React)  Common UI best practices (forms, CSS, validation, proper content including success / failure messages, spacing… etc.) |
| Asynchronous processing (Optional) | Fire and forget implementation using naked thread implementation or messaging queues   Date loss prevention in case of exceptional scenario (Reliable messaging) |
| Unit testing | Unit testing (Automation using Framework i.e., Junit, NUnit.. etc., Test case depth i.e. coverage, addressing positive, negative scenarios… etc.) |

PS:

* Have a static login page with hardcoded role/s (should be based on json configuration)
* Access to a VM with all necessary software already enabled for you (If you don’t have VM access, reach out to Rayala Phanendra [RayalaP@hexaware.com](mailto:RayalaP@hexaware.com))