

CT071-3-3-DDAC - DESIGNING & DEVELOPING CLOUD APPLICATIONS**GROUP PROJECT****TASK #1 – FRONTEND AND BACKEND DEVELOPMENT & CLOUD
DATABASE SERVICE
(CLO 2 – 10 Marks & CLO 3 – 20 Marks)**

Hand in Week	: Week 6
Submission Week	: Week 10
Submission Type	: Moodle System (<i>Group submission</i>) + 30 Minutes Presentation
Marking Type	: Individual + Group

Task #1 Development Notes:

In Task #1, your team must be able to develop an interactive and responsive user interface using an appropriate front-end programming language (e.g. HTML, CSS, JavaScript, etc.). In addition, your team must use **AWS cloud database service** (e.g. RDS or DynamoDB) to support backend database connection workflows.

At the end of development for Task #1, your team must deploy the developed application to the AWS Cloud using any one of the listed **AWS compute services** below:

1. Amazon Elastic Beanstalk
2. Amazon Elastic Compute Cloud (EC2)

Task #1 Submission Instructions:

1. Capture all the screenshots of your current application from the cloud and attach to a PowerPoint file. Additionally, provide the access URL link and login credentials for the cloud application in the PowerPoint slide. **Convert this PowerPoint file to PDF style** and submit to the Moodle system by the latest of **20 September 2024, before 5.00pm** using the following naming template:

tp000001_tp000002_tp000003_Task_1_Development.pdf

2. Compress your system files (including HTML, CSS, JavaScript, database script etc.) and submit to Moodle by the latest of **20 September 2024, before 5.00pm** according to the following naming template:

tp000001_tp000002_tp000003_Task_1_Development.zip

PowerPoint Report Submission Description:

- **Maximum of Total Slides:** 60
- **Submission Type:** PowerPoint
- PowerPoint slides should include the following contents:
 1. **Cover Page** (*1 slide*)
 - Selected Problem Topic
 - Project Title
 - Team Member Details
 2. **Project Background, Problem Statements, Aim and Objectives.** (*1 - 3 slides*)
 - Make sure to include at least ONE (1) problem statement and at least ONE (1) objective.
 3. **Design of the Proposed System** (*5 - 12 slides*)
 - Use Case Diagram
 - Database Diagram
 - Wireframe Diagram
 - Cloud Architectural Diagram
 - Summary for this section.
 4. **Implementation** (*10 - 20 slides*)
 - Screenshots of all the deployment steps from localhost to the cloud environment.
 - Make sure to record all the code for both frontend and backend development as much as possible.
 - Summary for this section.
 5. **Result and Discussion** (*10 - 20 slides*)
 - Snapshots of both the user interface and manual.
 - Summary for this section.
 6. **Conclusion** (*1 slide*)
 7. **Workload Table Matrix** (*1 slide*)
 - A table matrix that displays the workload for every member in this project.
 - Make sure to include the Requirement Analysis Section, Design and Implementation Section, and Final Documentation Section.
 8. **References** - optional (*1 slide*)
 9. **URL of the link and login credentials** for test your system (*1 slide*)

** This is a group submission but will be graded based on an individual basis, especially on the personal contribution in the system*

Between weeks 11 and 14, your team needs to arrange a consultation date and time with your lecturer to *live showcase* the system you deployed to AWS cloud in person. *This live demonstration session cannot be held until your team has submitted the final documentation and system to Moodle.*

Presentation Workflow Description:

- **Presentation time** for a group: **30 minutes**.
- Each member needs to **fast** live showcase their contribution **within 4 – 5 minutes**.
To address the issue of overtime, a clock timer will be utilized.
All live system demonstrations will cease once the time frame mentioned above has passed.
*[5 minutes * 3 members = 15 minutes] or [5 minutes * 4 members = 20 minutes]*
- If your live presentation exceeds the time limit, 2 points will be deducted from your current score. Therefore, practicing presentations is also important for this assignment.
For example, if your group should receive 25/30 points for this assignment, but if you exceed the presentation time limit, you will only receive 23/30 points for this assignment.
- **Remaining 10 minutes** for **Question-and-Answer (Q&A)** Section.
- **Presentation required during presentation:**
 - System must deploy in the AWS EC2/Elastic Beanstalk with online database (RDS / DynamoDB).
 - Scripts for all developed websites (including client/server-side scripts)