Mini Project - 2

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| **Student Name/ID Number:** | Agung Yuda Pratama / BDSE-0922-076 |
| **Unit Number and Title:** | ACWD Module 4 – Database Design & Implementation |
| **Academic Year:** | 2023 |
| **Unit Assessor:** |  |
| **Project Title:** | Implementing a Database for Community Portal |
| **Issue Date:** |  |
| **Submission Date:** |  |
| **Internal Verifier Name:** |  |
| **Date:** |  |

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| **Learner declaration** |
| I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.  Student signature: Date: 18 January 2023 |

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| **Purpose of this project** |
| **Purpose of this project**  To demonstrate your capabilities in the following areas:   * Ability to Implement a MySQL Database based on design created in Mini Project 1 |
| **Submission Format** |
| 1. Screen capture of Database Table structure in PhpMyAdmin 2. Queries used by Web pages in Tabular Format |
| **Project Brief & Guidance** |
| **Scenario:**  **Refer to the Project Scenario for the Module Project**  You have been approached by ‘ABC Jobs Pte Ltd’ as a website developer to develop a community portal for Software Developers. The project will be carried over through Module 3, Module 4, Module 5 and Capstone project. For this module the scope is to Design, Develop, Implement & Document Struts Framework Website.  The Scope of the Project is to design a Community Portal Similar to Linkedin.com. Users will be able to register in the portal using the Registration Page. Users of the portal can search for other users using various parameters such as First Name, Last Name, Company Name, City & Country. Users will be able to view the Public Profile of users after searching them. The portal allow users to login, request for forgotten password and Update their profile information  The scope of the mini project is to implement the database in MySQL.  **The overview of the project is as below**  There are 2 types of users in this Community portal. They are   1. Software Programmer 2. Administrator   **Software Programmer should be able to perform following functions in the portal**   1. Allow the programmers to register in the portal, show a thank you page & send a registration confirmation email. 2. Search & Find Other Programmers after login and view their profile. 3. Provide Login Page 4. Provide password retrieval functionality. |

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| 1. Update their Profile after logging in.   Following Functionality is part of Database Design & Will be enhanced as features as required in the Capstone Project, Depending on time availability.   1. Send Messages to Each Other on the Portal 2. Create Threads & Post Replies to a Thread 3. Post Job Opportunities in the Portal   **Administrator should be able to perform following functions in the portal**   1. Administer user data. 2. Send bulk email inviting programmers to register on the community portal   **The portal consist of the following Key pages (For Reference)**   1. Community Portal Home Page 2. Registration Page 3. Registration Confirmation Page 4. Update Profile Page 5. Search Users Page 6. List Search Results 7. Public Profile Page 8. Registration Confirmation Email 9. Login Page 10. Forget Password Page 11. Design the Forget Password Confirmation Page   Following Functionality is part of Database Design and will not be part of development & Will be enhanced as features are required in the Capstone Project, Depending on time availability.   1. Send Messages 2. Read Messages 3. Post in Message Board 4. List Message Board 5. Read A Thread 6. Post Job Opportunities 7. List Job Opportunities & Responses   **The scope of this assignment**  The scope is to Implement the database in MySQL   * 1. **Create the tables based on design in Mini Project 1**   First, make the community\_portal schema in MYSQL Workbench CREATE SCHEMA `community\_portal` ;  After that, we make The Tables  **Table for User**  CREATE TABLE user(  user\_id INT NOT NULL,  user\_email VARCHAR(55) NOT NULL,  user\_name VARCHAR(55) NOT NULL,  location VARCHAR(55) NOT NULL,  user\_password VARCHAR(55) NOT NULL,  date\_register VARCHAR(55) NOT NULL,  PRIMARY KEY (user\_id)  );    **Table for Administrator**  CREATE TABLE administrator(  admin\_id INT NOT NULL,  admin\_password VARCHAR(55) NOT NULL,  admin\_email VARCHAR(55) NOT NULL,  admin\_name VARCHAR(55) NOT NULL,  user\_id INT NOT NULL,  PRIMARY KEY (admin\_id),  FOREIGN KEY (user\_id) REFERENCES user(user\_id)  );    **Table for Bulk\_email**  CREATE TABLE bulk\_email(  email\_id INT NOT NULL,  content VARCHAR(155) NOT NULL,  admin\_id INT NOT NULL,  PRIMARY KEY (email\_id),  FOREIGN KEY (admin\_id) REFERENCES administrator(admin\_id)  );    **Table for Messages**  CREATE TABLE messages(  messages\_id INT NOT NULL,  date\_send VARCHAR(55) NOT NULL,  content VARCHAR(255) NOT NULL,  receiver\_id INT NOT NULL,  sender\_id INT NOT NULL,  user\_id INT,  PRIMARY KEY (messages\_id),  FOREIGN KEY (user\_id) REFERENCES user(user\_id)  );    **Table for Job**  CREATE TABLE job  (  job\_id INT NOT NULL,  job\_title VARCHAR(55) NOT NULL,  job\_desc VARCHAR(155) NOT NULL,  company\_id INT NOT NULL,  company\_name VARCHAR(55) NOT NULL,  PRIMARY KEY (job\_id)  );    **Table for Thread**  CREATE TABLE thread(  thread\_id INT NOT NULL,  user\_id INT NOT NULL,  tittle VARCHAR(55) NOT NULL,  content VARCHAR(155) NOT NULL,  date\_created VARCHAR(55) NOT NULL,  PRIMARY KEY (thread\_id)  );    **Table for Apply**  CREATE TABLE apply(  user\_id INT NOT NULL,  job\_id INT NOT NULL,  PRIMARY KEY (user\_id, job\_id),  FOREIGN KEY (user\_id) REFERENCES user(user\_id),  FOREIGN KEY (job\_id) REFERENCES job(job\_id)  );    **Table for Make**  CREATE TABLE make(  user\_id INT NOT NULL,  thread\_id INT NOT NULL,  PRIMARY KEY (user\_id, thread\_id),  FOREIGN KEY (user\_id) REFERENCES user(user\_id),  FOREIGN KEY (thread\_id) REFERENCES thread(thread\_id)  );    **Table for User\_education**  CREATE TABLE user\_education(  education VARCHAR(55) NOT NULL,  user\_id INT NOT NULL,  PRIMARY KEY (education, user\_id),  FOREIGN KEY (user\_id) REFERENCES user(user\_id)  );    **Table for Job\_location**  CREATE TABLE job\_location(  location VARCHAR(55) NOT NULL,  job\_id INT NOT NULL,  PRIMARY KEY (location, job\_id),  FOREIGN KEY (job\_id) REFERENCES job(job\_id)  );     * 1. **Take note of Field Name, Field Type & Size**  1. **User Field Name, Field Type & Size**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **user\_id** | int PK | | user\_email | varchar(55) | | user\_name | varchar(55) | | location | varchar(55) | | user\_password | varchar(55) | | date\_register | varchar(55) | |  |  1. **Administrator Field Name, Field Type & Size**  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **admin\_id** | int PK | | admin\_password | varchar(55) | | admin\_email | varchar(55) | | admin\_name | varchar(55) | | **user\_id** | int | |  |  1. **Bulk\_email Field Name, Field Type & Size**  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **email\_id** | int PK | | content | varchar(155) | | **admin\_id** | int | |  |  1. **Messages Field Name, Field Type & Size**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **messages\_id** | int PK | | date\_send | varchar(55) | | content | varchar(155) | | receiver\_id | int | | sender\_id | int | | **user\_id** | int | |  |  1. **Job Field Name, Field Type & Size**  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **job\_id** | int PK | | job\_title | varchar(55) | | job\_desc | varchar(155) | | company\_id | int | | company\_name | varchar(55) | |  |  1. **Thread Field Name, Field Type & Size**  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **thread\_id** | int PK | | user\_id | int | | tittle | varchar(55) | | content | varchar(155) | | date\_created | varchar(55) | |  |  1. **Apply Field Name, Field Type & Size**  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **user\_id** | int PK | | **job\_id** | int PK | |  |  1. **Make Field Name, Field Type & Size**  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **user\_id** | int PK | | **thread\_id** | int PK | |  |  1. **User\_education Field Name, Field Type & Size**  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **education** | varchar(55) PK | | **user\_id** | int PK | |  |  1. **Job\_location Field Name, Field Type & Size**  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Columns:**   |  |  | | --- | --- | | **location** | varchar(55) PK | | **job\_id** | int PK | |  |      * 1. **Implement the database in MySQL and provide screen capture**   **USER**   |  | | --- | | INSERT INTO `community\_portal`.`user` (`user\_id`, `user\_email`, `user\_name`, `location`, `user\_password`, `date\_register`) VALUES ('1', 'user1@example.com', 'Richard Smith', 'Illinois', '12345', '03/12/2022');  INSERT INTO `community\_portal`.`user` (`user\_id`, `user\_email`, `user\_name`, `location`, `user\_password`, `date\_register`) VALUES ('2', 'user2@example.com', 'Agung Yuda', 'Yokohama', 'qwerty123', '21/10/2022');  INSERT INTO `community\_portal`.`user` (`user\_id`, `user\_email`, `user\_name`, `location`, `user\_password`, `date\_register`) VALUES ('3', 'user3@example.com', 'Abdul Rahman', 'Bandung', 'abc123', '01/02/2022');  INSERT INTO `community\_portal`.`user` (`user\_id`, `user\_email`, `user\_name`, `location`, `user\_password`, `date\_register`) VALUES ('4', 'user4@example.com', 'Michael Davis', 'New York', 'Mypass', '07/01/2023');  INSERT INTO `community\_portal`.`user` (`user\_id`, `user\_email`, `user\_name`, `location`, `user\_password`, `date\_register`) VALUES ('5', 'user5@example.com', 'Jalen Green', 'Ohio', 'Pass321', '05/01/2023'); |   **Administrator**   |  | | --- | | INSERT INTO `community\_portal`.`administrator` (`admin\_id`, `admin\_password`, `admin\_email`, `admin\_name`, `user\_id`) VALUES ('1', 'Passadmin1', 'admin1@example.com', 'Jonatahn Berg', '1');  INSERT INTO `community\_portal`.`administrator` (`admin\_id`, `admin\_password`, `admin\_email`, `admin\_name`, `user\_id`) VALUES ('2', 'Passadmin2', 'admin2@example.com', 'Clara Fox', '2');  INSERT INTO `community\_portal`.`administrator` (`admin\_id`, `admin\_password`, `admin\_email`, `admin\_name`, `user\_id`) VALUES ('3', 'Passadmin3', 'admin3@example.com', 'Laura Love', '3');  INSERT INTO `community\_portal`.`administrator` (`admin\_id`, `admin\_password`, `admin\_email`, `admin\_name`, `user\_id`) VALUES ('4', 'Passadmin4', 'admin5@example.com', 'Michael Brown', '2');  INSERT INTO `community\_portal`.`administrator` (`admin\_id`, `admin\_password`, `admin\_email`, `admin\_name`, `user\_id`) VALUES ('5', 'Passadmin5', 'admin5@example.com', 'Crish John', '1'); |   **Bulk Email**   |  | | --- | | INSERT INTO `community\_portal`.`bulk\_email` (`email\_id`, `content`, `admin\_id`) VALUES ('1', 'We are glad to declare the introduction of our new product ABC. You Can Join Us', '1');  INSERT INTO `community\_portal`.`bulk\_email` (`email\_id`, `content`, `admin\_id`) VALUES ('2', 'We encourage you to join us at a future event so you may discover more about our business.', '2');  INSERT INTO `community\_portal`.`bulk\_email` (`email\_id`, `content`, `admin\_id`) VALUES ('3', 'For the role of Full Stack Developer, we are presently hiring.', '3');  INSERT INTO `community\_portal`.`bulk\_email` (`email\_id`, `content`, `admin\_id`) VALUES ('4', 'Come join us on our community portal to share ideas, discuss, and learn together!', '4');  INSERT INTO `community\_portal`.`bulk\_email` (`email\_id`, `content`, `admin\_id`) VALUES ('5', 'Don\'t miss the opportunity to connect with experts in your field on our community portal!', '5'); |   **Messages**   |  | | --- | | INSERT INTO `community\_portal`.`messages` (`messages\_id`, `date\_send`, `content`, `receiver\_id`, `sender\_id`, `user\_id`) VALUES ('1', '26/12/2022', 'Hi there, Agung Yuda! Thanks for being a valued member of the ABC community', '2', '1', '2');  INSERT INTO `community\_portal`.`messages` (`messages\_id`, `date\_send`, `content`, `receiver\_id`, `sender\_id`, `user\_id`) VALUES ('2', '18/08/2022', 'Hi Abdul Rahman, Whether your teams work in the same office or you work together from afar.', '3', '2', '3');  INSERT INTO `community\_portal`.`messages` (`messages\_id`, `date\_send`, `content`, `receiver\_id`, `sender\_id`, `user\_id`) VALUES ('3', '11/01/2023', 'Hello Jallen Green, how can I help you with our new product XYZ?', '5', '3', '5'); |   **Job**   |  | | --- | | INSERT INTO `community\_portal`.`job` (`job\_id`, `job\_title`, `job\_desc`, `company\_id`, `company\_name`) VALUES ('1', 'Software Engineer', 'Develop and maintain software applications for clients', '1', 'Acme Inc');  INSERT INTO `community\_portal`.`job` (`job\_id`, `job\_title`, `job\_desc`, `company\_id`, `company\_name`) VALUES ('2', 'Administrator', 'Manage and maintain a company\'s', '2', 'XYZ Corp');  INSERT INTO `community\_portal`.`job` (`job\_id`, `job\_title`, `job\_desc`, `company\_id`, `company\_name`) VALUES ('3', 'IT Project Manager', 'Plan, execute, and finalize projects according to strict deadlines and within budget', '3', 'ABC Technologies');  INSERT INTO `community\_portal`.`job` (`job\_id`, `job\_title`, `job\_desc`, `company\_id`, `company\_name`) VALUES ('4', 'Data Analyst', 'Collect, analyze, and interpret large data sets to identify patterns and trends', '4', '123 Consulting');  INSERT INTO `community\_portal`.`job` (`job\_id`, `job\_title`, `job\_desc`, `company\_id`, `company\_name`) VALUES ('5', 'Cybersecurity', 'Protect an organization\'s computer systems and networks from attack or unauthorized access', '5', 'Secure Systems Inc'); |   **Thread**   |  | | --- | | INSERT INTO `community\_portal`.`thread` (`thread\_id`, `user\_id`, `tittle`, `content`, `date\_created`) VALUES ('1', '5', 'Best programming languages for beginners', 'I am new to programming and am wondering what the best languages are to start with. Any suggestions?', '01/01/2023');  INSERT INTO `community\_portal`.`thread` (`thread\_id`, `user\_id`, `tittle`, `content`, `date\_created`) VALUES ('2', '1', 'Help with MySQL query optimization', 'I am having trouble optimizing a query in MySQL. Can anyone help?', '22/12/2022');  INSERT INTO `community\_portal`.`thread` (`thread\_id`, `user\_id`, `tittle`, `content`, `date\_created`) VALUES ('3', '4', 'JavaScript vs Python', 'I am trying to decide between JavaScript and Python for web development. What are the pros and cons of each?', '30/12/2022');  INSERT INTO `community\_portal`.`thread` (`thread\_id`, `user\_id`, `tittle`, `content`, `date\_created`) VALUES ('4', '1', 'How to fix a slow computer', 'My computer has been running slow recently and I\'m not sure how to fix it. Can anyone provide some tips or suggestions on how to speed it up?', '15/01/2023');  INSERT INTO `community\_portal`.`thread` (`thread\_id`, `user\_id`, `tittle`, `content`, `date\_created`) VALUES ('5', '2', 'Upgrading to Windows 10', 'I\'m planning on upgrading my work computer to Windows 10. Has anyone done this before and can provide some guidance?', '12/01/2023'); |   **Apply**   |  | | --- | | INSERT INTO `community\_portal`.`apply` (`user\_id`, `job\_id`) VALUES ('3', '5');  INSERT INTO `community\_portal`.`apply` (`user\_id`, `job\_id`) VALUES ('2', '1');  INSERT INTO `community\_portal`.`apply` (`user\_id`, `job\_id`) VALUES ('1', '3');  INSERT INTO `community\_portal`.`apply` (`user\_id`, `job\_id`) VALUES ('5', '4');  INSERT INTO `community\_portal`.`apply` (`user\_id`, `job\_id`) VALUES ('4', '2'); |   **Make**   |  | | --- | | INSERT INTO `community\_portal`.`make` (`user\_id`, `thread\_id`) VALUES ('5', '1');  INSERT INTO `community\_portal`.`make` (`user\_id`, `thread\_id`) VALUES ('1', '2');  INSERT INTO `community\_portal`.`make` (`user\_id`, `thread\_id`) VALUES ('4', '3');  INSERT INTO `community\_portal`.`make` (`user\_id`, `thread\_id`) VALUES ('1', '4');  INSERT INTO `community\_portal`.`make` (`user\_id`, `thread\_id`) VALUES ('5', '2'); |   **User\_education**   |  | | --- | | INSERT INTO `community\_portal`.`user\_education` (`education`, `user\_id`) VALUES ('Bachelor\'s', '1');  INSERT INTO `community\_portal`.`user\_education` (`education`, `user\_id`) VALUES ('Master’s, ', '1');  INSERT INTO `community\_portal`.`user\_education` (`education`, `user\_id`) VALUES ('Master’s, ', '2');  INSERT INTO `community\_portal`.`user\_education` (`education`, `user\_id`) VALUES ('Ph.D', '3');  INSERT INTO `community\_portal`.`user\_education` (`education`, `user\_id`) VALUES ('High School', '4');  INSERT INTO `community\_portal`.`user\_education` (`education`, `user\_id`) VALUES ('Bachelor\'s', '5');  INSERT INTO `community\_portal`.`user\_education` (`education`, `user\_id`) VALUES ('Master’s, ', '5'); |   **Job\_location**   |  | | --- | | INSERT INTO `community\_portal`.`job\_location` (`location`, `job\_id`) VALUES ('Tokyo', '1');  INSERT INTO `community\_portal`.`job\_location` (`location`, `job\_id`) VALUES ('Singapore', '1');  INSERT INTO `community\_portal`.`job\_location` (`location`, `job\_id`) VALUES ('Chicago', '2');  INSERT INTO `community\_portal`.`job\_location` (`location`, `job\_id`) VALUES ('Dubai', '3');  INSERT INTO `community\_portal`.`job\_location` (`location`, `job\_id`) VALUES ('Qatar', '3');  INSERT INTO `community\_portal`.`job\_location` (`location`, `job\_id`) VALUES ('Indonesia', '4'); |  * 1. **Create a user name in MySQL which can be used by the application, give required access privileges. (Provide screen capture of the user with access privileges)**   Create username ‘Agung’ and password ‘admin123456’    No account limit for this user    This is Role and Previleges for this account      And we make new user in database     * 1. **Briefly list the web pages in the Community portal and queries which will be used by each of them.**  |  |  |  |  | | --- | --- | --- | --- | | Page | Tables | Function | Query | | Registration Page | user | Create a new user | INSERT INTO `community\_portal`.`user` (`user\_id`, `user\_email`, `user\_name`, `location`, `user\_password`, `date\_register`) VALUES ('1', ‘some email’, 'Full name', 'location', 'password', 'date register'); | | Login Page | user | Validate login Credential | SELECT email\_adress, password FROM user WHERE email = “some email” AND password = “something” | | Edit Profile | user | Update Profile | UPDATE user SET user\_name = "someone", location = "something" WHERE user\_id = 1; | | Message | Messages | Send a message between the user | INSERT INTO `community\_portal`.`messages` (`messages\_id`, `date\_send`, `content`, `receiver\_id`, `sender\_id`, `user\_id`) VALUES ('1', ’date send the message’, ‘something, '2', '1', '2'); | | admin | bulk\_email | Send bulk email | INSERT INTO `community\_portal`.`bulk\_email` (`email\_id`, `content`, `admin\_id`) VALUES ('1',write content for bulk email', '5'); | |