

## Mini Project - 1

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<b>Unit Number and Title:</b>	ACWD Module 4 – Database Design & Implementation
<b>Academic Year:</b>	2022/23
<b>Unit Assessor:</b>	Mrs. Arvinder Kaur
<b>Project Title:</b>	Database Design for Community Portal
<b>Issue Date:</b>	2022/07/21
<b>Submission Date:</b>	2022/07/26
<b>Internal Verifier Name:</b>	
<b>Date:</b>	2022/07/26

### Learner declaration

I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.

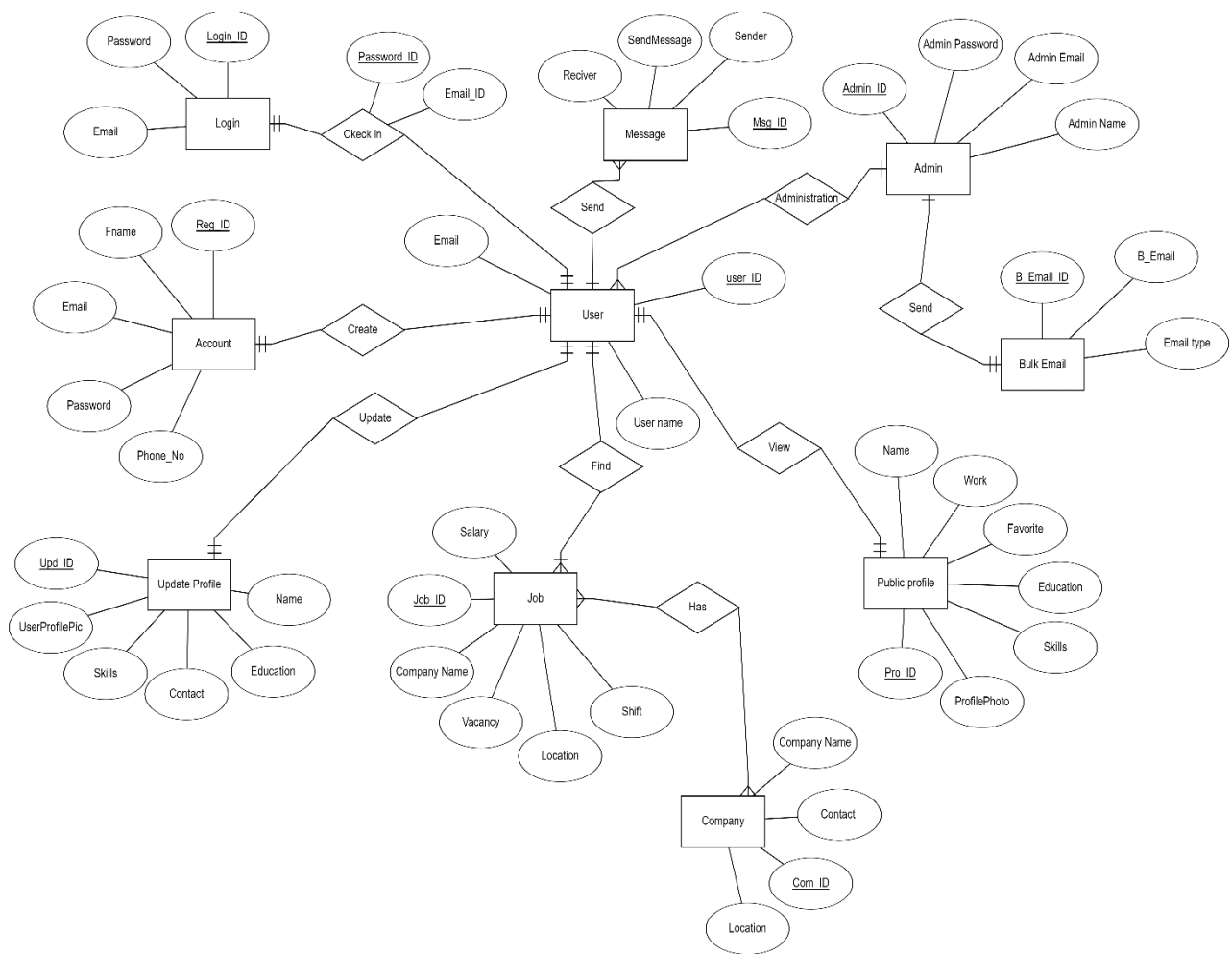
Student signature: Chathushi

Date: 26/07/2022

## 1. Identify the Entities in the Community Portal Database

<b>User</b>	<ul style="list-style-type: none"> <li>• User_ID</li> <li>• Email</li> <li>• Username</li> </ul>
<b>Admin</b>	<ul style="list-style-type: none"> <li>• Admin_ID</li> <li>• Admin Name</li> <li>• Admin Password</li> <li>• Admin Email</li> </ul>
<b>Account</b>	<ul style="list-style-type: none"> <li>• Regi_ID</li> <li>• Fname</li> <li>• Email</li> <li>• Password</li> <li>• Contact</li> </ul>
<b>Update Profile</b>	<ul style="list-style-type: none"> <li>• Upd_ID</li> <li>• UserProfilePic</li> <li>• Skills</li> <li>• Contact</li> <li>• Education</li> <li>• Name</li> </ul>
<b>Login</b>	<ul style="list-style-type: none"> <li>• Login_ID</li> <li>• Email</li> <li>• Password</li> </ul>
<b>Message</b>	<ul style="list-style-type: none"> <li>• Msg_ID</li> <li>• Sender</li> <li>• Receiver</li> <li>• SendMessage</li> </ul>
<b>Bulk Email</b>	<ul style="list-style-type: none"> <li>• B_Email_ID</li> <li>• B_Email</li> <li>• Email type</li> </ul>
<b>Public Profile</b>	<ul style="list-style-type: none"> <li>• Pro_ID</li> <li>• Name</li> <li>• Work</li> <li>• Favorite</li> <li>• Education</li> <li>• Skills</li> <li>• Profile Photo</li> </ul>
<b>Job</b>	<ul style="list-style-type: none"> <li>• Job_ID</li> <li>• Company Name</li> <li>• Vacancy</li> <li>• Salary</li> </ul>
<b>Company</b>	<ul style="list-style-type: none"> <li>• Com_ID</li> <li>• Company Name</li> <li>• Contact</li> <li>• Location</li> </ul>
<b>Update Profile</b>	<ul style="list-style-type: none"> <li>• Upd_ID</li> <li>• User Profile Pic</li> <li>• Skills</li> <li>• Contact</li> <li>• Education</li> <li>• Name</li> </ul>

## 2. Create ER Diagram for the Community Portal Database



### 3. Create Sample data for all tables in the community portal (At least 3 tables)

#### ✓ Job

Vacancy_ID	Company	Vacancy Type	Location	Salary	Shift
1	Tec Sonic, IFS	Software Engineer	France	96000	Morning
2	Kingslake, George Bernard	Business Development Manager	Riyad	87000	Closing
3	IFS	Customer Care Executive	Venice	70000	Middle
4	George Bernard	Electrical Engineer	Remo	97000	Closing

#### ✓ Account

Regi_ID	Account	Name	Account_Type	Password
1	Facebook	Sara	Fake Account	789012
2	Instagram	Novel	Community Blog	345678
3	Skype	Ashley	Business Account, Personal Account	123457
4	Twitter	Leo	Spam Account	876543
5	Yahoo	Kevin	Professional Account	987654

#### ✓ User Profile Page

Pro_ID	UserName	Job_Name	Education	Company
1	Sara	Software Engineer	Stanford University	Kingslake
2	Leo	Technician	Flora University	TecSonic
2	Leo	Technician	Harvard University	CEB
2	Leo	Technician	NSBM	Telecome
3	Kevin	Business Development Manager	University of Cambridge	S&S Sons
4	Ashley	Electrical Engineer	UCL	CEB
5	Nethu	Customer Care Executive	Cornell	Telecome

## 4. Normalize the complete database to 3rd normal form

### ✓ Job

UNF					
Vacancy_ID	Company	Vacancy Type	Location	Salary	Shift
1	Tec Sonic,IFS	Software Engineer	France	96000	Morning
2	Kingslake, George Bernard	Business Development Manager	Riyad	87000	Closing
3	IFS	Customer Care Executive	Venice	70000	Middle
4	George Bernard	Electrical Engineer	Remo	97000	Closing
Vacancy_ID	Company	Vacancy Type	Location	Salary	Shift
1	Tec Sonic	Software Engineer	France	96000	Morning
1	IFS	Software Engineer	France	96000	Morning
2	Kingslake	Business Development Manager	Riyad	87000	Closing
2	George Bernard	Business Development Manager	Riyad	87000	Closing
3	IFS	Customer Care Executive	Venice	70000	Middle
4	George Bernard	Electrical Engineer	Remo	97000	Closing

1NF				
Vacancy_ID	Com_ID	Vacancy Type	Location	Salary
1	1	Software Engineer	France	96000
1	2	Software Engineer	France	96000
2	3	Business Development Manager	Riyad	87000
2	4	Business Development Manager	Riyad	87000
3	5	Customer Care Executive	Venice	70000
4	6	Electrical Engineer	Remo	96000
Com_ID	Company			
1	Tec Sonic			
2	IFS			
3	Kingslake			
4	George Bernard			

2NF			
Vacancy_ID	Com_ID	Shift	
1	1	Morning	
1	2	Morning	
2	3	Closing	
2	4	Closing	
3	5	Middle	
4	6	Closing	
Com_ID	Company	Location	Salary ID
1	Tec Sonic	France	11
2	IFS	France	22
3	Kingslake	Riyad	33
4	George Bernard	Riyad	44
5	IFS	Venice	55
6	George Bernard	Remo	66
Vacancy_ID	Vacancy Type	Salary	Salary ID
1	Software Engineer	96000	1
1	Software Engineer	96000	2
2	Business Development Manager	87000	3
2	Business Development Manager	87000	4
3	Customer Care Executive	70000	5
4	Electrical Engineer	96000	6

3NF			
Com_ID	Company	Location	
1	Tec Sonic	France	
2	IFS	France	
3	Kingslake	Riyad	
4	George Bernard	Riyad	
5	IFS	Venice	
6	George Bernard	Remo	
Vacancy id	Vacancy Type	Salary ID	Salary
1	Software Engineer	1	96000
1	Software Engineer	2	96000
2	Business Development Manager	3	87000
2	Business Development Manager	4	87000
3	Customer Care Executive	5	70000
4	Electrical Engineer	6	96000
Salary ID	Salary		
1	96000		
2	96000		
3	87000		
4	87000		
5	70000		
6	96000		

## ✓ Account

UNF				
Regi_ID	Account	Name	Account_Type	Passwor
1	Facebook	Sara	Fake Accooount	789012
2	Instagram	Novel	Community Blog	345678
3	Skype	Ashley	Business Account, Personal Account	123457
4	Twitter	Leo	Spam Account	876543
5	Yahoo	Kevin	Professional Account	987654
Regi_ID	Account	Name	Account_Type	Passwor
1	Facebook	Sara	Fake Accooount	789012
2	Instagram	Novel	Community Blog	345678
3	Skype	Ashley	Business Account	123457
3	Skype	Ashley	Personal Account	123457
4	Twitter	Leo	Spam Account	876543
5	Yahoo	Kevin	Professional Account	987654

1NF				
Account_Type_ID	Account_Type			
11	Fake Accooount			
22	Community Blog			
33	Business Account			
33	Personal Account			
44	Spam Account			
55	Professional Account			
Regi_ID	Account_Type_ID	Name	Password	Account
1	11	Sara	789012	Facebook
2	22	Novel	345678	Instagram
3	33	Ashley	123457	Skype
4	44	Leo	876543	Twitter
5	55	Kevin	987654	Yahoo

2NF		
Account Type ID	Account Type	
11	Fake Account	
22	Community Blog	
33	Business Account	
33	Personal Account	
44	Spam Account	
55	Professional Account	
Regi ID	Account Type ID	Column3
1	11	
2	22	
3	33	
4	44	
5	55	
Regi ID	Name	Password
1	Sara	789012
2	Novel	345678
3	Ashley	123457
4	Leo	876543
5	Kevin	987654

3NF		
Account Type ID	Account Type	
11	Fake Account	
22	Community Blog	
33	Business Account	
33	Personal Account	
44	Spam Account	
55	Professional Account	
Regi ID	Name	Password
1	Sara	789012
2	Novel	345678
3	Ashley	123457
4	Leo	876543
5	Kevin	987654
Password ID	Password	
1111	789012	
2222	345678	
3333	123457	
4444	876543	
5555	987654	

## ✓ Public Profile

UNF				
Pro_ID	UserName	Job_Name	Education	Company
1	Sara	Software Engineer	Stanford Univeristy	Kingslake
2	Leo	Technician	Harvard University	TecSonic, CEB,Telecome
3	Kevin	Business Development Manager	University of Cambridge	S&S Sons
4	Ashley	Electrical Engineer	UCL	CEB
5	Nethu	Customer Care Executive	Cornell	Telecome
Pro_ID	UserName	Job_Name	Education	Company
1	Sara	Software Engineer	Stanford Univeristy	Kingslake
2	Leo	Technician	Flora University	TecSonic
2	Leo	Technician	Harvard University	CEB
2	Leo	Technician	NSBM	Telecome
3	Kevin	Business Development Manager	University of Cambridge	S&S Sons
4	Ashley	Electrical Engineer	UCL	CEB
5	Nethu	Customer Care Executive	Cornell	Telecome

1NF				
Education_ID	Education			
111	Stanford Univeristy			
222	Flora University			
222	Harvard University			
222	NSBM			
333	University of Cambridge			
444	UCL			
555	Cornell			
Pro_ID	Education_ID	Username	Job_Name	Comapany
1	111	Sara	Software Engineer	Kingslake
2	222	Leo	Technician	TecSonic
3	333	Kevin	Business Development Manager	CEB
4	444	Ashley	Electrical Engineer	Telecome
5	555	Nethu	Customer Care Executive	S&S Sons

2NF		
Education_ID	Education	
111	Stanford Univeristy	
222	Harvard University	
222	University of Cambridge	
222	UCL	
333	Cornell	
444	UCL	
555	Cornell	
Pro_ID	Education_ID	Username
1	111	Sara
2	222	Leo
3	333	Kevin
4	444	Ashley
5	555	Nethu
Pro_ID	Job_Name	Comapany
1	Software Engineer	Kingslake
2	Technician	TecSonic
3	Business Development Manager	CEB
4	Electrical Engineer	Telecome
5	Customer Care Executive	S&S Sons



3NF		
Education ID	Education	
111	Stanford Univeristy	
222	Harvard University	
222	University of Cambridge	
222	UCL	
333	Cornell	
444	UCL	
555	Cornell	
Pro_ID	Education_ID	Username
1	111	Sara
2	222	Leo
3	333	Kevin
4	444	Ashley
5	555	Nethu
Pro_ID	Job_Name	Company_ID
1	Software Engineer	123
2	Technician	234
3	Business Development Manager	345
4	Electrical Engineer	456
5	Customer Care Executive	567
Company_ID	Comapany	
123	Kingslake	
234	TecSonic	
345	CEB	
456	Telecome	

## 5. Identify the relationships in tables & document them

