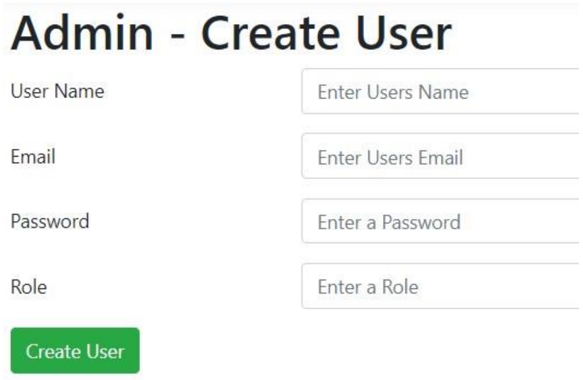
BAIS3110 Authentication Assignment Part II

Reference

- Lecture Notes
- Encryption Assignment
- https://www.devtrends.co.uk/blog/hashing-encryption-and-random-in-asp.net-core

1. Using your previous Authentication Assignment 1, add the following new functionality.
2. Add a register page to the Pages/Admin folder with the ability to Create a new user.

   OR simply create a new register page that can be used to create a new user.

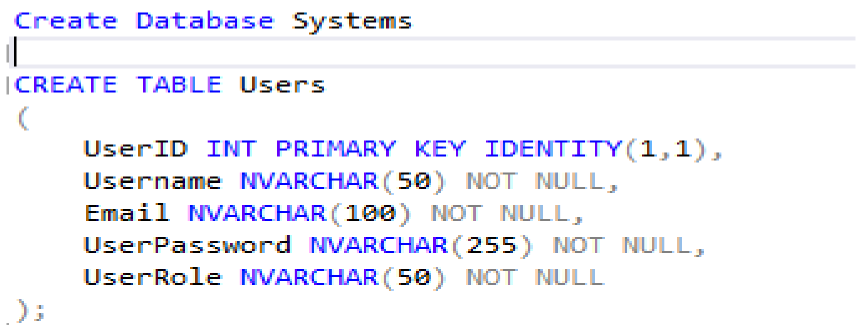


Admin - Create User

User Name	Enter Users Name
Email	Enter Users Email
Password	Enter a Password
Role	Enter a Role

3. Create a database to hold the User info called BAIS3110Authentication. submit a screenshot of the table created and database creation code (PDF)

   Answer:

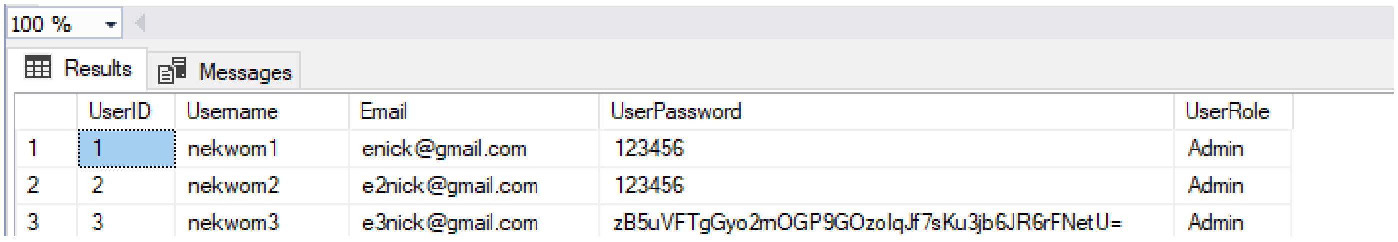


```
Create Database Systems

CREATE TABLE Users
(
	UserID INT PRIMARY KEY IDENTITY(1,1),
	Username NVARCHAR(50) NOT NULL,
	Email NVARCHAR(100) NOT NULL,
	UserPassword NVARCHAR(255) NOT NULL,
	UserRole NVARCHAR(50) NOT NULL
);
```

4. Add Salted Password Hashing to your previously created Forms Authentication Application/the new page. Choose whatever hashing algorithm you think is best. You are not limited to lecture notes/labs, use any Hashing algorithm you like. You are supplied with example in the reference links.
5. Store the Hash and Salts along with the User info. Do not store the clear text password. Submit a screenshot and the code (PDF)

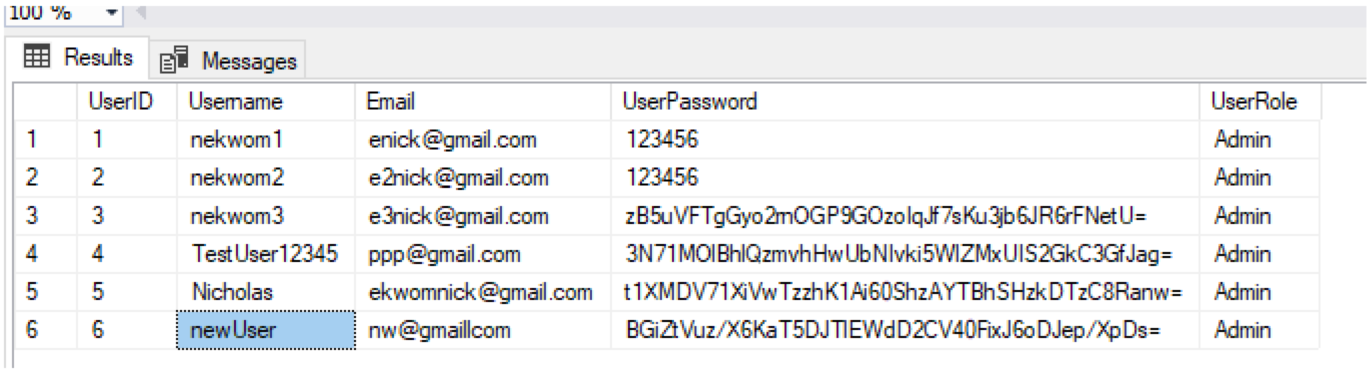
   Answer



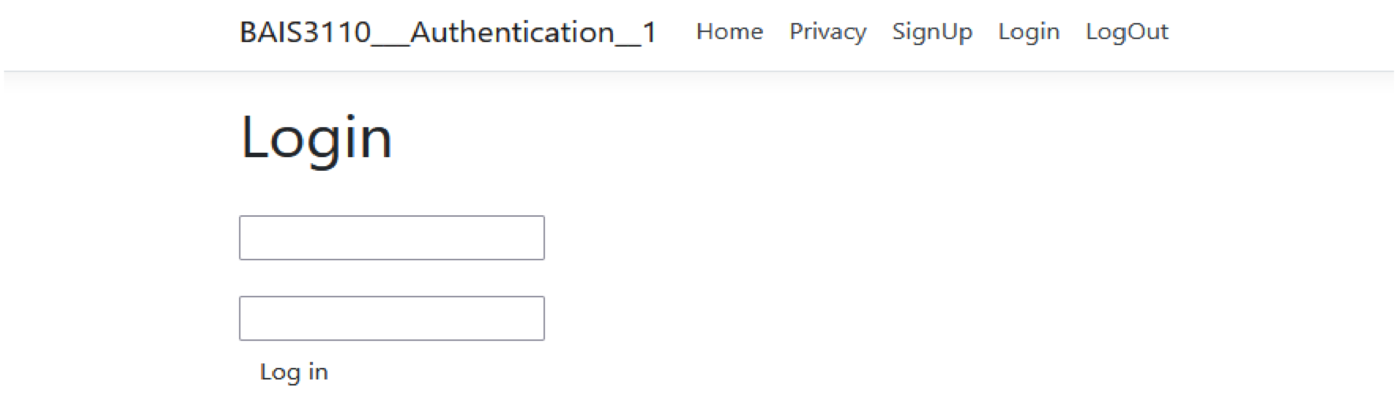
	UserID	Username	Email	UserPassword	UserRole
1	1	nekwom1	enick@gmail.com	123456	Admin
2	2	nekwom2	e2nick@gmail.com	123456	Admin
3	3	nekwom3	e3nick@gmail.com	zB5uVFTgGyo2mOGP9GOzolqJf7sKu3jb6JR6rFNetU=	Admin

6. Modify your Login function/Create a login page to properly authenticate your users with the Hashed Password and Salt values that were stored by the Register page
7. Create 5 users with the same password, look at the passwords in the SQL Users table and see that they are different.
8. Refactor the system using a Controller class as an entry point to the system and a SecurityManager class to contain the Business Logic.

Submit a screen shot of the login and another screen shot of the SQL User Table with a few users added



	UserID	Username	Email	UserPassword	UserRole
1	1	nekwom1	enick@gmail.com	123456	Admin
2	2	nekwom2	e2nick@gmail.com	123456	Admin
3	3	nekwom3	e3nick@gmail.com	zB5uVFTgGyo2mOGP9GOzolqJf7sKu3jb6JR6rFNetU=	Admin
4	4	TestUser12345	ppp@gmail.com	3N71MOIBhlQzmvhHwUbNIvki5WIZMxUIS2GkC3GfJag=	Admin
5	5	Nicholas	ekwomnick@gmail.com	t1XMDV71XiVwTzzhK1Ai60ShzAYTBhSHzkDTzC8Ranw=	Admin
6	6	newUser	nw@gmaillcom	BGiZtVuz/X6KaT5DJTlEWdD2CV40FixJ6oDJep/XpDs=	Admin



This example combines the Password and Salt (Using the reference link hash/salting examples)

Sample Final Output