

Submitted By:

Malaika Zulqarnain

SkillHub Website Database Documentation

Project Overview

This document describes the Microsoft SQL Server database design for the SkillHub website. The database supports website navigation, user profiles, admin dashboard, courses, instructors, success stories, and contact management.

Database Name

SkillHubWebsiteDB

Database Type: Microsoft SQL Server (Relational Database)

Tables Overview

Roles

Users

Instructors

Courses

Enrollments

SuccessStories

ContactMessages

AboutContent

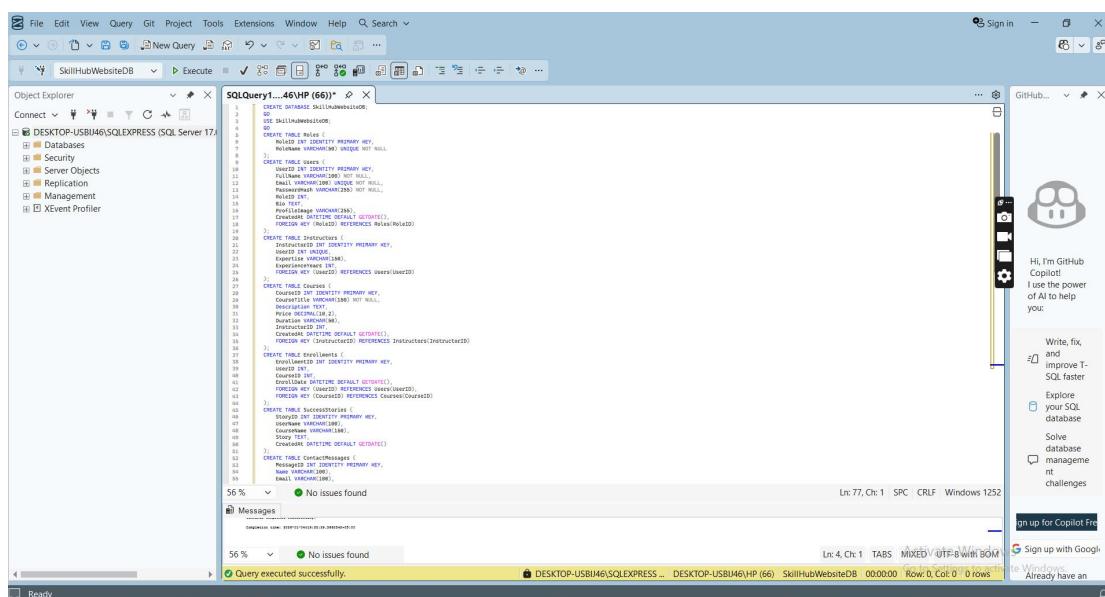
Settings

ActivityLogs

Future Scope

The database is scalable and can support payments, certificates, quizzes, and reporting modules.

Creating Tables:



```
CREATE TABLE Roles (
    RoleID INT IDENTITY PRIMARY KEY,
    RoleName NVARCHAR(50) UNIQUE NOT NULL
);
GO
CREATE TABLE Users (
    UserID INT IDENTITY PRIMARY KEY,
    Username NVARCHAR(50) UNIQUE NOT NULL,
    Email NVARCHAR(100) UNIQUE NOT NULL,
    PasswordHash NVARCHAR(256) NOT NULL,
    PasswordSalt NVARCHAR(128) NOT NULL,
    RoleID INT,
    BirthDate DATE,
    ProfileImage VARBINARY(MAX),
    PhoneNumber NVARCHAR(15),
    LastLogin DATETIME,
    LastLogout DATETIME,
    LastActivity DATETIME,
    FOREIGN KEY (RoleID) REFERENCES Roles(RoleID)
);
CREATE TABLE Instructors (
    InstructorID INT IDENTITY PRIMARY KEY,
    FirstName NVARCHAR(50) NOT NULL,
    MiddleName NVARCHAR(50),
    LastName NVARCHAR(50) NOT NULL,
    Description NVARCHAR(500),
    BirthDate DATE,
    ProfileImage VARBINARY(MAX),
    PhoneNumber NVARCHAR(15),
    LastLogin DATETIME,
    LastLogout DATETIME,
    LastActivity DATETIME,
    FOREIGN KEY (InstructorID) REFERENCES Users(UserID)
);
CREATE TABLE Courses (
    CourseID INT IDENTITY PRIMARY KEY,
    CourseTitle NVARCHAR(100) NOT NULL,
    Description NVARCHAR(500),
    InstructorID INT,
    BirthDate DATE,
    ProfileImage VARBINARY(MAX),
    PhoneNumber NVARCHAR(15),
    LastLogin DATETIME,
    LastLogout DATETIME,
    LastActivity DATETIME,
    FOREIGN KEY (InstructorID) REFERENCES Instructors(InstructorID)
);
CREATE TABLE Enrollments (
    EnrollmentID INT IDENTITY PRIMARY KEY,
    UserID INT,
    CourseID INT,
    EnrollmentStatus NVARCHAR(50),
    EnrollmentDate DATETIME DEFAULT GETDATE(),
    FOREIGN KEY (UserID) REFERENCES Users(UserID),
    FOREIGN KEY (CourseID) REFERENCES Courses(CourseID)
);
CREATE TABLE SuccessStories (
    StoryID INT IDENTITY PRIMARY KEY,
    StoryTitle NVARCHAR(100),
    StoryText NVARCHAR(MAX),
    StoryImage NVARCHAR(500),
    StoryDate DATETIME DEFAULT GETDATE()
);
CREATE TABLE ContactMessages (
    MessageID INT IDENTITY PRIMARY KEY,
    Name NVARCHAR(50),
    Email NVARCHAR(100),
    MessageText NVARCHAR(MAX)
);
```

Inserting data into tables:

```
USE SkillHubWebsiteDB;
GO
-- Insert into Roles
INSERT INTO Roles (RoleName)
VALUES ('Admin'), ('Instructor'), ('User');
-- Insert into users (Fullname, Email, PasswordHash, RoleID, Bio)
INSERT INTO users (Fullname, Email, PasswordHash, RoleID, Bio)
VALUES
    ('Admin One', 'admin@skillhub.com', 'hashedpass', 1, 'create cinematic videos'),
    ('Ahmed', 'ahmed@skillhub.com', 'hashedpass', 2, 'ai powered'),
    ('Sara', 'sara@skillhub.com', 'hashedpass', 2, 'illustration'),
    ('Malakia', 'malakia@skillhub.com', 'hashedpass', 2, 'podcast channel'),
    ('Fatima', 'fatima@skillhub.com', 'hashedpass', 3, 'drop shipping'),
    ('Ayesha', 'ayesha@gmail.com', 'hashedpass', 3, 'Learning UI Design'),
    ('Nida', 'nida@skillhub.com', 'hashedpass', 3, 'Interested in Data Science');
-- Insert into Instructors (UserID, Expertise, ExperienceYears)
INSERT INTO Instructors (UserID, Expertise, ExperienceYears)
VALUES
    (2, 'product management', 5),
    (3, 'Illustration & Graphic Design'),
    (4, 'ai powered'),
    (5, 'podcast channel');
-- Insert into Courses (CourseTitle, Description, Price, Duration, InstructorID)
INSERT INTO Courses (CourseTitle, Description, Price, Duration, InstructorID)
VALUES
    ('AI Powered Marketing', 'Learn how to use AI tools for digital marketing, content creation, ad optimization, and customer targeting.', 5500, '3 Months', 1),
    ('Illustration & Graphic Design', 'Create professional illustrations and digital artwork using modern design tools and creative techniques.', 4500, '3 Months', 2),
    ('Dropshipping Business', 'Learn how to start and scale a dropshipping business including product research, supplier management, and marketing.', 6000, '3 Months', 3),
    ('Podcast Channel Management', 'Build and grow a podcast channel covering recording, editing, publishing, branding, and monetization strategies.', 4000, '2 Months', 3);
-- Insert into Enrollments (UserID, CourseID)
INSERT INTO Enrollments (UserID, CourseID)
VALUES
    (5, 1),
    (5, 2),
    (7, 3),
    (5, 4);
-- Insert into AboutContent (Title, Description)
INSERT INTO AboutContent (Title, Description)
VALUES
    ('About SkillHub', 'SkillHub is an online learning platform providing industry-ready skills.'),
    ('Our Mission', 'To empower students with practical and job-oriented skills.');
-- Insert into Settings (SettingKey, SettingValue)
INSERT INTO Settings (SettingKey, SettingValue)
VALUES
    ('WebSiteName', 'SkillHub'),
    ('Theme', 'light'),
    ('CopyrightText', 'Copyright © 2024 SkillHub.com');
-- No issues found
```

Ln: 53, Ch 1 TABS CRLF Windows 1252

Activate Window

Query executed successfully.

DESKTOP-USBI46\SQLEXPRESS ... DESKTOP-USBI46\HP (74) SkillHubWebsiteDB 000000 Row: 0, Col: 0 0 rows

Ready

Applying queries

File Edit View Query Git Project Tools Extensions Window Help Sign in

SkillHubWebsiteDB New Query Execute

Object Explorer

Connect ▾ Databases Security Server Objects Replication Management XEvent Profiler

DESKTOP-USBI46\SQLEXPRESS (SQL Server 17)

SQLQuery3...I46(HP (53))

```
USE SkillHubWebsiteDB;
SELECT FullName, Email FROM Users;
SELECT CourseTitle, Price, Duration FROM Courses;
SELECT u.FullName, i.Expertise
FROM Instructors i
JOIN Users u ON i.UserID = u.UserID;
SELECT * FROM ContactMessages ORDER BY SentAt DESC;
SELECT * FROM ContactMessages ORDER BY SentAt DESC;
```

Results Messages

FullName	Email
Admin One	admin@skillhub.com
Ahmed	ahmed@skillhub.com
Sara	sara@skillhub.com
maleika	maleika@skillhub.com
fatima	fatima@gmail.com
Ayesha	ayesha@gmail.com
node	node@gmail.com

CourseTitle	Price	Duration
AI Powered Marketing	5500.00	3 Months
Illustration & Graphic Design	4500.00	2 Months
Droップing Business	5000.00	3 Months
Podcast Channel Management	4000.00	2 Months

FullName	Expertise
Ahmed	podcast channel
Sara	illustration
maleika	ai powered

MessageID	Name	Email	Message	SentAt

MessageID	Name	Email	Message	SentAt

Hi, I'm GitHub Copilot!
I use the power of AI to help you:

Write, fix, and improve T-SQL faster
Explore your SQL database
Solve database management challenges
Sign up with Google

Activate Windows

Ready

Query executed successfully.

DESKTOP-USBI46\SQLEXPRESS ... DESKTOP-USBI46\HP (53) SkillHubWebsiteDB 00:00:00 Row: 1, Col: 1 | 14 rows

GitHub...

localhost/phpmyadmin/index.php?route=/database/sql&db=skillhub_db

phpMyAdmin

Server: 127.0.0.1 > Database: skillhub_db

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Designer

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0374 seconds)

```
CREATE TABLE roles ( role_id INT AUTO_INCREMENT PRIMARY KEY, role_name VARCHAR(50) UNIQUE NOT NULL );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0367 seconds)

```
CREATE TABLE users ( user_id INT AUTO_INCREMENT PRIMARY KEY, full_name VARCHAR(100) NOT NULL, email VARCHAR(100) UNIQUE NOT NULL, password_hash VARCHAR(255) NOT NULL, role_id INT, bio TEXT, profile_image VARCHAR(255), created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, FOREIGN KEY (role_id) REFERENCES roles(role_id) );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0261 seconds)

```
CREATE TABLE instructors ( instructor_id INT AUTO_INCREMENT PRIMARY KEY, user_id INT UNIQUE, expertise VARCHAR(150), experience_years INT, FOREIGN KEY (user_id) REFERENCES users(user_id) );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0326 seconds)

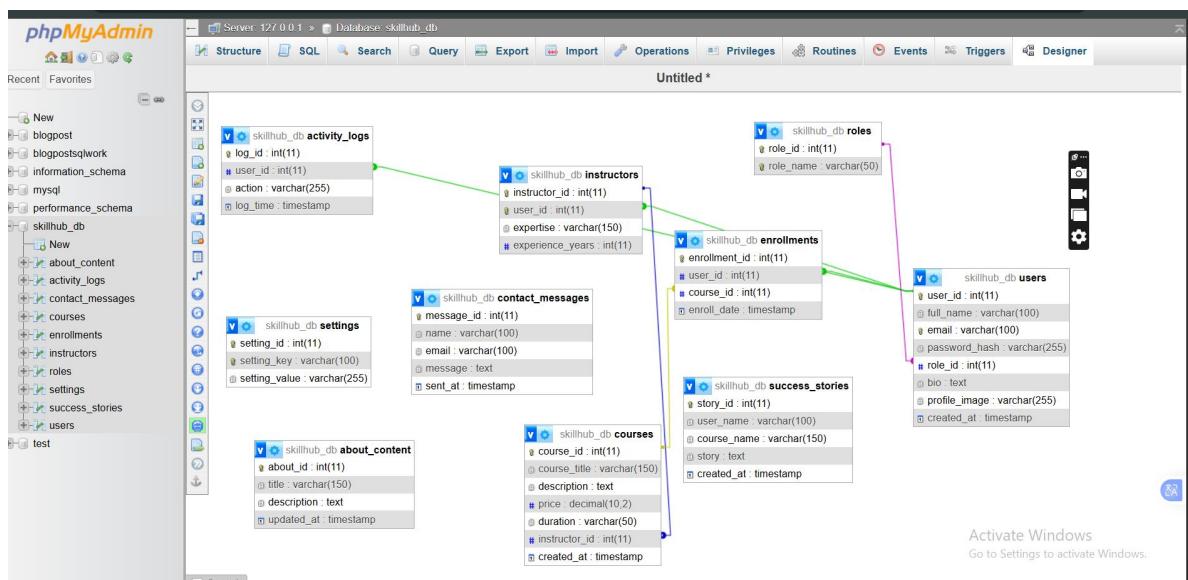
```
CREATE TABLE courses ( course_id INT AUTO_INCREMENT PRIMARY KEY, course_title VARCHAR(150) NOT NULL, description TEXT, price DECIMAL(10,2), duration VARCHAR(50), instructor_id INT, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, FOREIGN KEY (instructor_id) REFERENCES instructors(instructor_id) );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0370 seconds)

Console

Activate Windows
Go to Settings to activate Windows.



Working on MongoDB

MongoDB Compass - localhost:27017/skill_hubdb

Connections Edit View Help

Compass

My Queries

Data Modeling

CONNECTIONS (2)

Search connections

localhost:27017

- admin
- config
- local
- skill_hubdb**
- localhost:27017

localhost:27017 > skill_hubdb

Open MongoDB shell Create collection Refresh

Collection name	Properties	Storage size	Documents	Avg. document size	Indexes	Total index size
about_content	-	4.10 kB	1	105.00 B	1	4.10 kB
courses	-	36.86 kB	1	199.00 B	1	36.86 kB
enrollment	-	4.10 kB	1	120.00 B	1	4.10 kB
instructor	-	4.10 kB	1	104.00 B	1	4.10 kB
skillhub	-	20.48 kB	3	107.00 B	1	20.48 kB
success_stories	-	4.10 kB	1	132.00 B	1	4.10 kB

⋮

MongoDB Compass - localhost:27017/skill_hubdb.skillhub

Connections Edit View Collection Help

Compass

My Queries

Data Modeling

CONNECTIONS (2)

localhost:27017

- admin
- config
- local
- skill_hubdb
 - about_content
 - courses
 - enrollment
 - instructor
 - skillhub
 - success_stories
- localhost:27017

localhost:27017 > skill_hubdb > skillhub

Documents 3 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#).

[EXPLAIN](#) [Reset](#) [Find](#) [Options](#)

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

25 1–3 of 3

`_id: ObjectId('695ba73d851053459350649e')`
`fullName : "Admin One"`
`email : "admin@skillhub.com"`
`passwordHash : "hashepass"`
`role : "Admin"`
`createdAt : "2025-01-01"`

`_id: ObjectId('695ba77085105345935064a0')`
`fullName : "malaika"`
`email : "malaika@gmail.com"`
`role : "User"`

`_id: ObjectId('695ba77085105345935064a1')`
`fullName : "ayesha"`
`email : "ayesha@gmail.com"`
`role : "User"`

[...](#)

[EXPLAIN](#)

Type a query: { field: 'value' } or [Generate query](#).

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

25 1–1 of 1

`_id: ObjectId('695ba89085105345935064ab')`
`userEmail : "malaika@gmail.com"`
`courseTitle : "AI Powered Marketing"`
`enrolledAt : "2025-01-05"`

intent

[...](#)

MongoDB Compass - localhost:27017/skill_hubdb

Connections Edit View Help

Compass

My Queries Data Modeling

CONNECTIONS (2)

Search connections

- localhost:27017
 - admin
 - config
 - local
 - skill_hubdb**
 - about_content
 - courses
 - enrollment
 - instructor
 - skillhub
 - success_stories
- localhost:27017

localhost:27017 > skill_hubdb

Open MongoDB shell Create collection Refresh

Collection name	Properties	Storage size	Documents	Avg. document size	Indexes	Total index size
about_content	-	4.10 kB	1	105.00 B	1	4.10 kB
courses	-	36.86 kB	1	199.00 B	1	36.86 kB
enrollment	-	4.10 kB	1	120.00 B	1	4.10 kB
instructor	-	4.10 kB	1	104.00 B	1	4.10 kB
skillhub	-	20.48 kB	3	107.00 B	1	20.48 kB
success_stories	-	4.10 kB	1	132.00 B	1	4.10 kB

More options