```
CREATE DATABASE SoftwareHouse;
USE SoftwareHouse;
SET SQL_SAFE_UPDATES = 0;
```

#### #----% Table Creation %

# **CREATE TABLE Client (**

ClientID	INT	NOT NULL,
FirstName	VARCHAR(255)	NOT NULL,
LastName	VARCHAR(255)	NOT NULL,
Email	VARCHAR(255)	NOT NULL,
Phone	VARCHAR(255)	NOT NULL,
Address	VARCHAR(255)	NOT NULL,
DDIMADY KEY (ClientID)		

PRIMARY KEY (ClientID)

);



# **CREATE TABLE Employee (**

EmployeeID	INT	NOT NULL,
FirstName	VARCHAR(255)	NOT NULL,
LastName	VARCHAR(255)	NOT NULL,
Email	VARCHAR(255)	NOT NULL,
Phone	VARCHAR(255)	NOT NULL,
Address	VARCHAR(255)	NOT NULL,
HireDate	DATE	NOT NULL,
Salary	INT	NOT NULL,

PRIMARY KEY (EmployeeID)

);



# **CREATE TABLE Project (**

ProjectID INT NOT NULL,
Title VARCHAR(255) NOT NULL,
Description VARCHAR(255) NOT NULL,
StartDate DATE NOT NULL,
EndDate DATE NOT NULL,

PRIMARY KEY (ProjectID)

);



# **CREATE TABLE Task (**

TaskIDINTNOT NULL ,DescriptionVARCHAR(255)NOT NULL ,StartDateDATENOT NULL ,EndDateDATENOT NULL ,

PRIMARY KEY (TaskID)

);



# **CREATE TABLE Service (**

ServiceIDINTNOT NULL,NameVARCHAR(255)NOT NULL,DescriptionVARCHAR(255)NOT NULL,

PRIMARY KEY (ServiceID)

);



# **CREATE TABLE Contract (**

ContractID INT NOT NULL,
StartDate DATE NOT NULL,
EndDate DATE NOT NULL,
TermsAndConditions VARCHAR(255) NOT NULL,

PRIMARY KEY (ContractID)

);



# **CREATE TABLE Payment (**

PaymentIDINTNOT NULL ,AmountINTNOT NULL ,PaymentDateDATENOT NULL ,

PRIMARY KEY (PaymentID)

);



#-----% Adding Foreign Keys %

# **ALTER TABLE Project**

ADD ClientID INT, ADD FOREIGN KEY (ClientID) REFERENCES Client (ClientID) ON DELETE CASCADE ON UPDATE CASCADE;



#### **ALTER TABLE Task**

ADD ProjectID INT, ADD FOREIGN KEY (ProjectID) REFERENCES Project (ProjectID) ON DELETE CASCADE ON UPDATE CASCADE:



#### **ALTER TABLE Task**

ADD EmployeeID INT, ADD FOREIGN KEY (EmployeeID) REFERENCES Employee (EmployeeID) ON DELETE CASCADE ON UPDATE CASCADE;



#### **ALTER TABLE Contract**

ADD ServiceID INT, ADD FOREIGN KEY (ServiceID) REFERENCES Service (ServiceID) ON DELETE CASCADE ON UPDATE CASCADE;



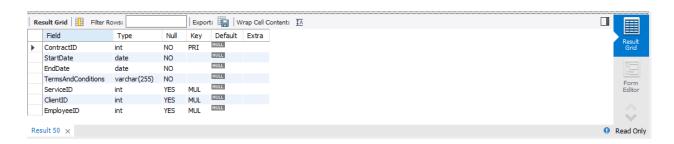
#### **ALTER TABLE Contract**

ADD ClientID INT
ADD FOREIGN KEY (ClientID)
REFERENCES Client (ClientID)
ON DELETE CASCADE
ON UPDATE CASCADE:



#### **ALTER TABLE Contract**

ADD EmployeeID INT
ADD FOREIGN KEY (EmployeeID)
REFERENCES Employee (EmployeeID)
ON DELETE CASCADE
ON UPDATE CASCADE:



# **ALTER TABLE Payment**

ADD ContractID INT, ADD FOREIGN KEY (ContractID) REFERENCES Contract (ContractID) ON DELETE CASCADE ON UPDATE CASCADE;



# #-----% Inserting Data %

# INSERT INTO Client (ClientID, FirstName, LastName, Email, Phone, Address) VALUES

- (1, 'John', 'Doe', 'johndoe@gmail.com', '123-456-7890', '123 Main Street'),
- (2, 'Jane', 'Smith', 'janesmith@gmail.com', '555-667-8901', '456 Elm Street'),
- (3, 'Michael', 'Jones', 'michaeljones@gmail.com', '789-012-3456', '789 Oak Street'),
- (4, 'Sarah', 'Williams', 'sarahwilliams@gmail.com', '901-234-5678', '101 Maple Street'),
- (5, 'David', 'Brown', 'davidbrown@gmail.com', '234-567-8901', '234 Pine Street'),
- (6, 'Emily', 'Green', 'emilygreen@gmail.com', '567-890-1234', '345 Elm Street'),
- (7, 'Peter', 'White', 'peterwhite@gmail.com', '890-123-4567', '456 Oak Street'),
- (8, 'Susan', 'Black', 'susanblack@gmail.com', '012-345-6789', '567 Maple Street'),
- (9, 'Thomas', 'Gray', 'thomasgray@gmail.com', '345-678-9012', '789 Oak Street'),
- (10, 'Nancy', 'Pink', 'nancypink@gmail.com', '678-901-2345', '101 Maple Street');

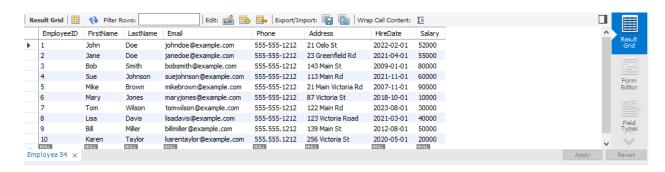
				I =				
	ClientID	FirstName	LastName	Email	Phone	Address		
٠	1	John	Doe	johndoe@gmail.com	123-456-7890	123 Main Street		
	2	Jane	Smith	janesmith@gmail.com	555-667-8901	456 Elm Street		
	3	Michael	Jones	michaeljones@gmail.com	789-012-3456	789 Oak Street		
	4	Sarah	Williams	sarahwilliams@gmail.com	901-234-5678	101 Maple Street		
	5	David	Brown	davidbrown@gmail.com	234-567-8901	234 Pine Street		
	6	Emily	Green	emilygreen@gmail.com	567-890-1234	345 Elm Street		
	7	Peter	White	peterwhite@gmail.com	890-123-4567	456 Oak Street		
	8	Susan	Black	susanblack@gmail.com	012-345-6789	567 Maple Street		
	9	Thomas	Gray	thomasgray@gmail.com	345-678-9012	789 Oak Street		
	10	Nancy	Pink	nancypink@gmail.com	678-901-2345	101 Maple Street		

# INSERT INTO Employee (EmployeeID, FirstName, LastName, Email, Phone, Address, HireDate, Salary)

#### **VALUES**

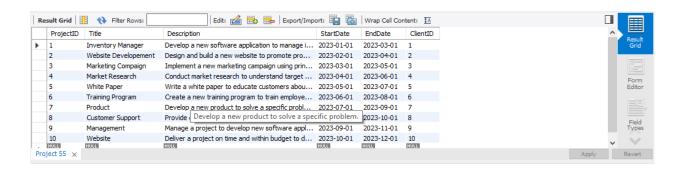
- (1, "John", "Doe", "johndoe@example.com", "555-555-1212", "21 Oslo St", "2022-02-01", 52000),
- (2, "Jane", "Doe", "janedoe@example.com", "555-555-1212", "23 Greenfield Rd", "2021-04-01", 55000),
- (3, "Bob", "Smith", "bobsmith@example.com", "555-555-1212", "143 Main St", "2009-01-01", 80000),
- (4, "Sue", "Johnson", "suejohnson@example.com", "555-555-1212", "113 Main Rd", "2021-11-01", 60000),
- (5, "Mike", "Brown", "mikebrown@example.com", "555-555-1212", "21 Main Victoria Rd", "2007-11-01", 90000),
- (6, "Mary", "Jones", "maryjones@example.com", "555-555-1212", "87 Victoria St", "2018-10-01", 10000),
- (7, "Tom", "Wilson", "tomwilson@example.com", "555-555-1212", "122 Main Rd", "2023-08-01", 30000),
- (8, "Lisa", "Davis", "lisadavis@example.com", "555-555-1212", "123 Victoria Road", "2021/03/01", "40000"),

- (9,"Bill","Miller","billmiller@example.com","555.555.1212","139 Main St","2012/08/01","50000"),
- (10,"Karen","Taylor","karentaylor@example.com","555.555.1212","256 Victoria St","2020/05/01","20000");



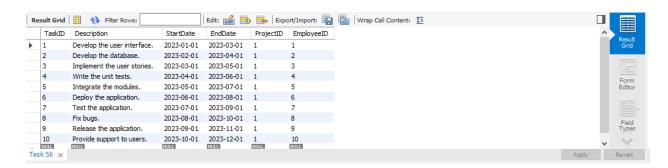
# INSERT INTO Project (ProjectID, Title, Description, StartDate, EndDate, ClientID) VALUES

- (1, 'Inventory Manager', 'Develop a new software application to manage inventory.', '2023-01-01', '2023-03-01', 1),
- (2, 'Website Developement', 'Design and build a new website to promote products and services.', '2023-02-01', '2023-04-01', 2),
- (3, 'Marketing Compaign', 'Implement a new marketing campaign using print, online, and social media.', '2023-03-01', '2023-05-01', 3),
- (4, 'Market Research', 'Conduct market research to understand target market and needs.', '2023-04-01', '2023-06-01', 4),
- (5, 'White Paper', 'Write a white paper to educate customers about new technology.', '2023-05-01', '2023-07-01', 5),
- (6, 'Training Program', 'Create a new training program to train employees on new software application.', '2023-06-01', '2023-08-01', 6),
- (7, 'Product', 'Develop a new product to solve a specific problem.', '2023-07-01', '2023-09-01', 7),
- (8, 'Customer Support', 'Provide customer support via phone, email, and chat.', '2023-08-01', '2023-10-01', 8),
- (9, 'Management', 'Manage a project to develop new software application.', '2023-09-01', '2023-11-01', 9),
- (10, 'Website', 'Deliver a project on time and within budget to develop new website.', '2023-10-01', '2023-12-01', 10);



# INSERT INTO Task (TaskID, Description, StartDate, EndDate, ProjectID, EmployeeID) VALUES

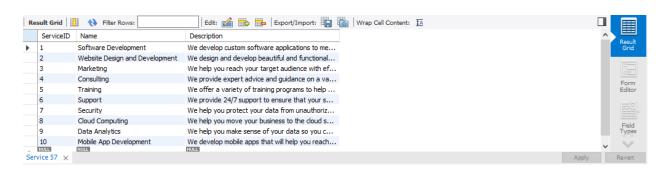
- (1, 'Develop the user interface.', '2023-01-01', '2023-03-01', 1, 1),
- (2, 'Develop the database.', '2023-02-01', '2023-04-01', 1, 2),
- (3, 'Implement the user stories.', '2023-03-01', '2023-05-01', 1, 3),
- (4, 'Write the unit tests.', '2023-04-01', '2023-06-01', 1, 4),
- (5, 'Integrate the modules.', '2023-05-01', '2023-07-01', 1, 5),
- (6, 'Deploy the application.', '2023-06-01', '2023-08-01', 1, 6),
- (7, 'Test the application.', '2023-07-01', '2023-09-01', 1, 7),
- (8, 'Fix bugs.', '2023-08-01', '2023-10-01', 1, 8),
- (9, 'Release the application.', '2023-09-01', '2023-11-01', 1, 9),
- (10, 'Provide support to users.', '2023-10-01', '2023-12-01', 1, 10);



# INSERT INTO Service (ServiceID, Name, Description) VALUES

- (1, 'Software Development', 'We develop custom software applications to meet your business needs.'),
- (2, 'Website Design and Development', 'We design and develop beautiful and functional websites that will help you grow your business.'),
- (3, 'Marketing', 'We help you reach your target audience with effective marketing campaigns.'),
- (4, 'Consulting', 'We provide expert advice and guidance on a variety of business-related topics.'),
- (5, 'Training', 'We offer a variety of training programs to help you and your employees develop the skills you need to succeed.'),
- (6, 'Support', 'We provide 24/7 support to ensure that your software applications and websites are always up and running.'),

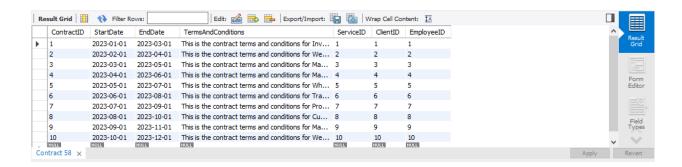
- (7, 'Security', 'We help you protect your data from unauthorized access.'),
- (8, 'Cloud Computing', 'We help you move your business to the cloud so you can save money and improve efficiency.'),
- (9, 'Data Analytics', 'We help you make sense of your data so you can make better business decisions.'),
- (10, 'Mobile App Development', 'We develop mobile apps that will help you reach your target audience on their mobile devices.');



# INSERT INTO Contract (ContractID, ServiceID, ClientID, EmployeeID, StartDate, EndDate, TermsAndConditions)

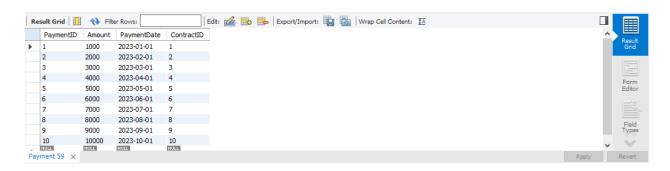
#### **VALUES**

- (1, 1, 1, 1, '2023-01-01', '2023-03-01', 'This is the contract terms and conditions for Inventory Manager Project.'),
- (2, 2, 2, 2, '2023-02-01', '2023-04-01', 'This is the contract terms and conditions for Website Development.').
- (3, 3, 3, '2023-03-01', '2023-05-01', 'This is the contract terms and conditions for Marketing Compaign.'),
- (4, 4, 4, 4, '2023-04-01', '2023-06-01', 'This is the contract terms and conditions for Market Research.'),
- (5, 5, 5, 5, '2023-05-01', '2023-07-01', 'This is the contract terms and conditions for White Paper.'),
- (6, 6, 6, 6, '2023-06-01', '2023-08-01', 'This is the contract terms and conditions for Training Program.'),
- (7, 7, 7, 7, '2023-07-01', '2023-09-01', 'This is the contract terms and conditions for Product.'),
- (8, 8, 8, 8, '2023-08-01', '2023-10-01', 'This is the contract terms and conditions for Customer Support.'),
- (9, 9, 9, 9, '2023-09-01', '2023-11-01', 'This is the contract terms and conditions for Management.'),
- (10, 10, 10, 10, '2023-10-01', '2023-12-01', 'This is the contract terms and conditions for Website.');



# INSERT INTO Payment (PaymentID, ContractID, Amount, PaymentDate) VALUES

```
(1,
                       1,
                               1000,
                                          '2023-01-01'),
                        2,
                               2000,
                                          '2023-02-01'),
(2,
(3,
                       3,
                               3000.
                                          '2023-03-01'),
(4,
                       4,
                               4000,
                                          '2023-04-01'),
(5,
                       5,
                               5000,
                                          '2023-05-01'),
                       6,
                                          '2023-06-01'),
(6,
                               6000.
(7,
                       7,
                               7000,
                                          '2023-07-01'),
(8,
                       8,
                               8000,
                                         '2023-08-01'),
(9,
                       9,
                                          '2023-09-01'),
                               9000.
(10,
                       10.
                               10000,
                                          '2023-10-01');
```



# #-----% Updation %

### **UPDATE Client**

SET FirstName = 'James' WHERE ClientID = 1;

# **UPDATE Client**

SET Phone = '545-545-1216' WHERE ClientID = 5;

# **UPDATE Client**

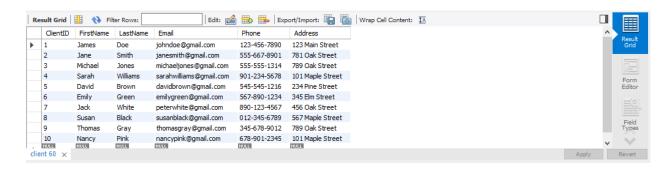
SET Address = '781 Oak Street' WHERE ClientID = 2;

#### **UPDATE Client**

SET Phone = '555-555-1314' WHERE ClientID = 3;

#### **UPDATE Client**

SET FirstName = 'Jack' WHERE ClientID = 7;



# **UPDATE Employee**

SET FirstName = 'John', LastName = 'Doe' WHERE EmployeeID = 1;

# **UPDATE Employee**

SET Salary = 200500 WHERE EmployeeID = 2;

# **UPDATE** Employee

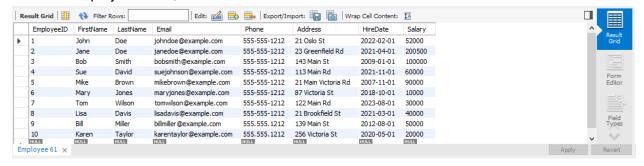
SET Address = '21 Brookfield St' WHERE EmployeeID = 8;

# **UPDATE Employee**

SET Salary = 100000 WHERE EmployeeID = 3;

# **UPDATE** Employee

SET LastName = 'David' WHERE EmployeeID = 4;



# **UPDATE Project**

SET Title = "Inventory Management System" WHERE ProjectID = 1;

# **UPDATE Project**

SET StartDate = "2010-04-01" WHERE ProjectID = 8;

# **UPDATE Project**

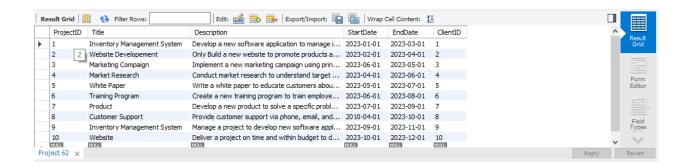
SET Description = "Only Build a new website to promote products and services." WHERE ProjectID = 2;

#### **UPDATE Project**

SET StartDate = "2023-06-01" WHERE ProjectID = 3;

### **UPDATE Project**

SET Title = "Inventory Management System" WHERE ProjectID = 9;



#### **UPDATE** task

SET EndDate = "2023-12-01" WHERE TaskID = 8;

#### **UPDATE** task

SET EndDate = "2019-02-03" WHERE TaskID = 5;

#### **UPDATE** task

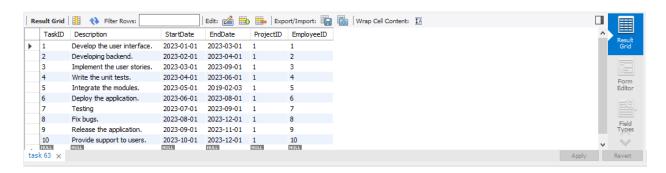
SET Description = "Developing backend." WHERE TaskID = 2;

#### **UPDATE** task

SET EndDate = "2023-09-01" WHERE TaskID = 3;

#### **UPDATE** task

SET Description = "Testing" WHERE TaskID = 7;



#### **UPDATE Service**

SET Name = 'Software Development Service' WHERE ServiceID = 1;

#### **UPDATE Service**

SET Description = 'New Description' WHERE ServiceID = 2;

#### **UPDATE Service**

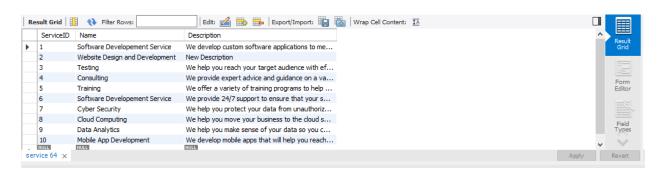
SET Name = 'Cyber Security'
WHERE ServiceID = 7;

#### **UPDATE Service**

SET Name = 'Testing' WHERE ServiceID = 3;

#### **UPDATE Service**

SET Name = 'Software Development Service' WHERE ServiceID = 6;



#### **UPDATE Contract**

SET EndDate = '2023-03-01'
WHERE StartDate = '2023-01-01';

### **UPDATE Contract**

SET TermsAndConditions = 'This is the new contract terms and conditions for Service 1.'
WHERE ServiceID = 1;

### **UPDATE Contract**

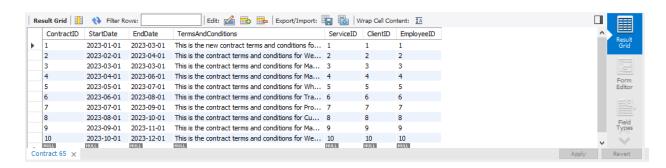
SET EmployeeID = 2 WHERE ClientID = 2;

#### **UPDATE Contract**

SET EndDate = '2023-03-01' WHERE ContractID = 3;

#### **UPDATE Contract**

SET EndDate = '2023-03-01' WHERE ServiceID = 3;



### **UPDATE Payment**

SET Amount = 2000 WHERE ContractID = 1;

# **UPDATE Payment**

SET PaymentDate = '2023-03-01' WHERE PaymentID = 5;

# **UPDATE Payment**

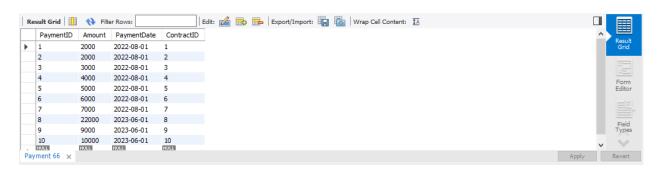
SET PaymentDate = '2023-06-01' WHERE Amount > 5000;

# **UPDATE Payment**

SET PaymentDate = '2022-08-01' WHERE Amount < 8000;

### **UPDATE Payment**

SET Amount = 22000 WHERE ContractID = 8;





 $\frac{https://github.com/taahahussainkhan/Structured-Query-Language/tree/mai}{n/Software-House-Schema}$