

QUESTION 1

Create a New Database and Table for Employees Task: Create a new database named and Create a table named with the following columns:

ANSWER

The screenshot shows a SQL IDE interface. The main editor displays the following SQL code:

```
1 • CREATE DATABASE company_db1;
2 • USE company_db1;
3
4 • CREATE TABLE employees (
5     employee_id INT PRIMARY KEY,
6     first_name VARCHAR(50),
7     last_name VARCHAR(50),
8     department VARCHAR(50),
9     salary INT,
10    hire_date DATE
11 );
12
13 • SELECT * FROM employees;
14 • INSERT INTO employees
```

Below the editor, the 'Result Grid' shows a table with columns: employees_id, first_name, last_name, department, salary, hire_date. The table is currently empty.

On the right side, a 'Context Help' window is open, displaying the message: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

At the bottom, the 'Output' window shows the execution log:

#	Time	Action	Message	Duration / Fetch
26	20:55:56	SELECT * FROM employees LIMIT 0, 1000	0 row(s) returned	0.016 sec / 0.000 sec
27	20:58:26	Insert into employees Value(101,"amit","shama","HR",50000,2020-01-15) (102,"nva","kapoor","sales",7500...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
28	20:58:53	Insert into employees Value(101,"amit","shama","HR",50000,2020-01-15) (102,"nva","kapoor","sales",7500...	Error Code: 1292. Incorrect date value: '2004' for column 'hire_date' at row 1	0.016 sec

PROBLEM FACING - IN MY SIDE ,I HAVE RUN CODE IN SQL,BUT THE TABLE IS NOT SHOWING ,PLEASE HELP ME PARTICULAR SUBJECT

QUESTION 2	. Insert Data into Employees Table Task: Insert the following sample records into the employee table
ANSWER	PROBLEM FACING - IN MY SIDE ,I HAVE RUN CODE IN SQL,BUT THE TABLE IS NOT SHOWING ,PLEASE HELP ME PARTICULAR SUBJECT

QUESTION 3		Display All Employee Records Sorted by Salary (Lowest to Highest)			
		Hint: Use the order by clause on the salary column.			
ANSWER					

QUESTION 4	. Show Employees Sorted by Department (A–Z) and Salary (High → Low)					
ANSWER						

QUESTION 5		. List All Employees in the IT Department, Ordered by Hire Date (Newest First)				
ANSWER						

QUESTION 6		. Create and Populate a Sales Table		
		Task: Create a table sales to track sales data:		
ANSWER				

QUESTION 7		Display All Sales Records Sorted by Amount (Highest → Lowest)			
		HINT USE ORDER BY AMOUNT DESC			
ANSWER					

QUESTION 8		Show All Sales Made by Customer "Aditi		
		USE WHERE CUSTOMER NAME= ADITI		
ANSWER				

QUESTION 9		What is the Difference Between a Primary Key and a Foreign Key?				
ANSWER		Primary Key				
		A Primary Key is a column (or combination of columns) that uniquely identifies each row in a table.				
		Values must be UNIQUE				
		Cannot contain NULL				
		Only one Primary Key per table				
		Ensures entity integrity				
		Foreign Key				
		A Foreign Key is a column in one table that refers to the Primary Key of another table.				
		Can contain duplicate values				
		Can contain NULL (unless restricted)				
		Multiple Foreign Keys allowed in a table				
		Ensures referential integrity				
		Primary Key → Identifies a row uniquely				
		Foreign Key → Creates a relationship between tables				
		Both work together to maintain data consistency and integrity				

QUESTION 10		What Are Constraints in SQL and Why Are They Used?						
ANSWER		Constraints in SQL are rules applied to table columns to control the type, range, and integrity of data stored in a database.						
		They ensure that invalid, duplicate, or inconsistent data cannot be inserted into a table						
		Why Are Constraints Used?						
		Maintain data integrity (correct and meaningful data)						
		Prevent invalid data entry						
		Enforce business rules						
		Ensure relationships between tables						
		Reduce errors at the database level						