

Instruction:

Complete all questions in 1 hour.

1. Differentiate between Data and Information .

Ans:

Data refers to the raw facts and figures that have not been organized or processed, while information is data that has been arranged and presented in a meaningful context. Data is the unprocessed input, while information is the output that can be used for decision-making or drawing conclusions. In simpler terms, data is the raw material and information is the finished product.

2. Write short notes on:

a) DBMS:

A DBMS, or Database Management System, is a software system that enables users to interact with databases. It provides various tools for creating, modifying, and querying databases. It also manages the storage, retrieval, and security of data and ensures the integrity of the data. DBMSs are widely used in various industries such as banking, healthcare, and e-commerce to manage and organize large amounts of data.

b) SQL:

SQL, which stands for Structured Query Language, is a programming language used to manage and manipulate data in relational databases. It is used for inserting, updating, retrieving, and deleting data in a database. It is

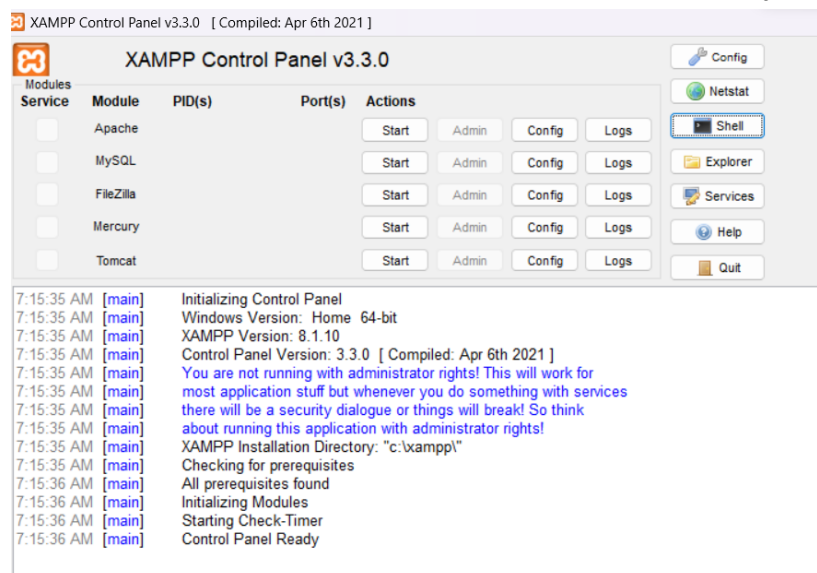
a widely used standard language for relational database management systems.

c) File System:

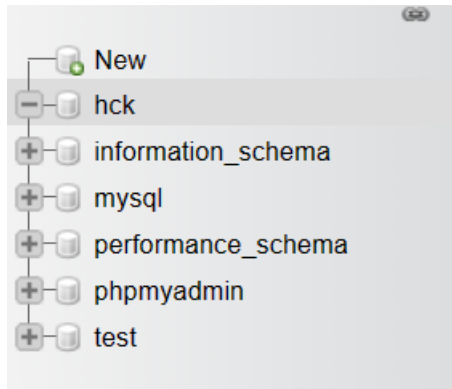
A file system is a way of organizing and storing files on a storage device such as hard drive or flash drive. It arranges files in a hierarchical structure, with a main directory at the top and subdirectories beneath it.

Different file systems have different characteristics and features like support for different file types, file permissions, and file compression. They are crucial for managing and organizing files on a computer or other electronic devices, and enables users to easily access and manipulate their files.

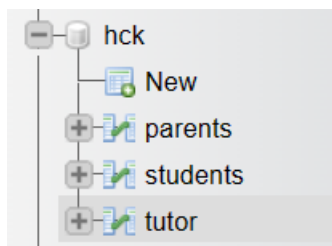
3. Download and install XAMPP from any browser.



4. Create a database named HCK.



5. Create tables named Students, Parents and Tutors.



Recent

Favorites

New

hck

New

students

information_schema

mysql

performance_schema

phpmyadmin

test

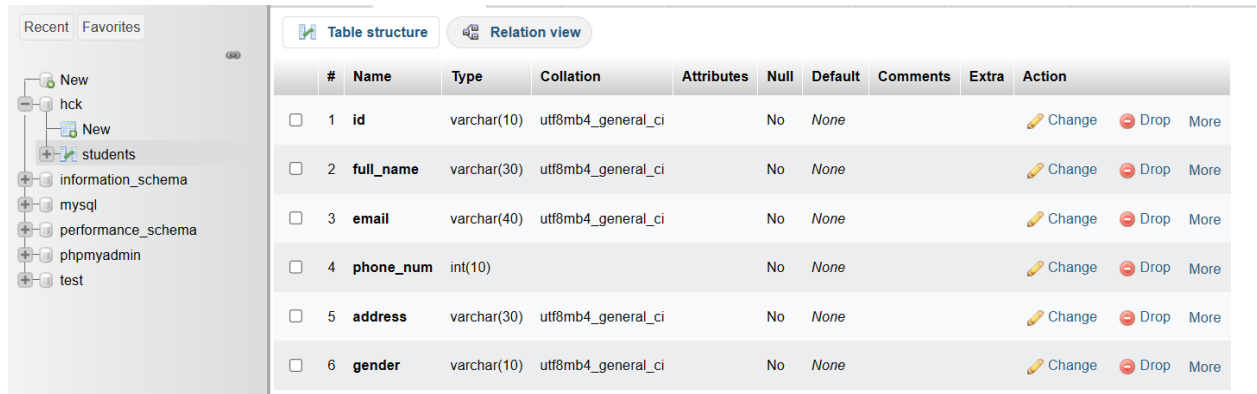
Table structure

Relation view

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	id	varchar(10)	utf8mb4_general_ci		No	None			<div><div></div>Change</div> <div><div></div>Drop</div> <div>More</div>
<input type="checkbox"/>	2	full_name	varchar(30)	utf8mb4_general_ci		No	None			<div><div></div>Change</div> <div><div></div>Drop</div> <div>More</div>
<input type="checkbox"/>	3	email	varchar(40)	utf8mb4_general_ci		No	None			<div><div></div>Change</div> <div><div></div>Drop</div> <div>More</div>
<input type="checkbox"/>	4	phone_num	int(10)			No	None			<div><div></div>Change</div> <div><div></div>Drop</div> <div>More</div>
<input type="checkbox"/>	5	address	varchar(30)	utf8mb4_general_ci		No	None			<div><div></div>Change</div> <div><div></div>Drop</div> <div>More</div>
<input type="checkbox"/>	6	gender	varchar(10)	utf8mb4_general_ci		No	None			<div><div></div>Change</div> <div><div></div>Drop</div> <div>More</div>

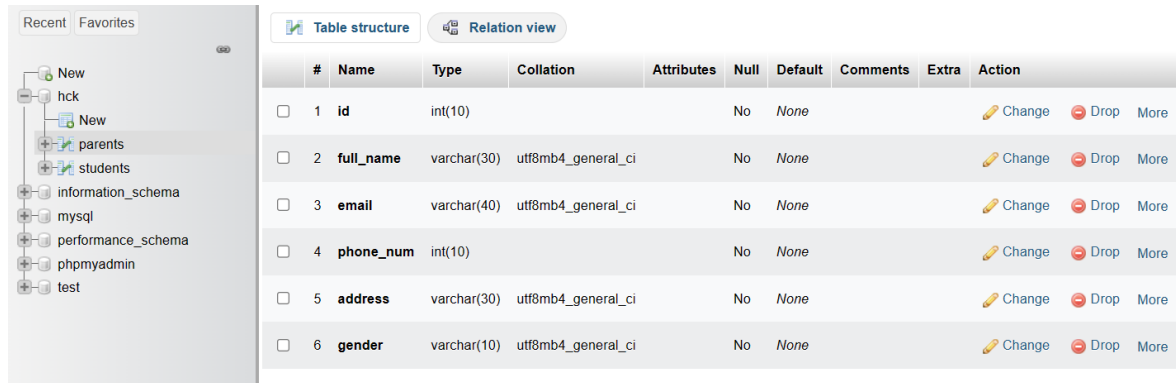
6. Create the attributes like (id, full_name, email, phone_no, address and gender) in all the above tables with suitable

data types.



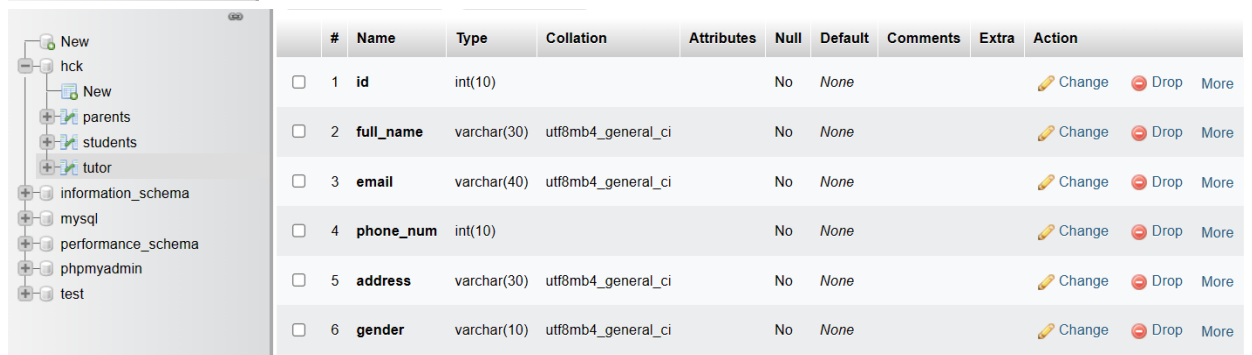
The screenshot shows the phpMyAdmin interface with the 'Table structure' view selected. The left sidebar shows a database tree with 'hck' selected, containing 'New', 'students', 'information_schema', 'mysql', 'performance_schema', 'phpmyadmin', and 'test'. The main panel displays the structure of the 'students' table with 6 columns.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	id	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 2	full_name	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 3	email	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 4	phone_num	int(10)			No	None			Change Drop More
<input type="checkbox"/> 5	address	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 6	gender	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More



The screenshot shows the phpMyAdmin interface with the 'Table structure' view selected. The left sidebar shows a database tree with 'hck' selected, containing 'New', 'parents', 'students', 'information_schema', 'mysql', 'performance_schema', 'phpmyadmin', and 'test'. The main panel displays the structure of the 'parents' table with 6 columns.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	id	int(10)			No	None			Change Drop More
<input type="checkbox"/> 2	full_name	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 3	email	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 4	phone_num	int(10)			No	None			Change Drop More
<input type="checkbox"/> 5	address	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 6	gender	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More



The screenshot shows the phpMyAdmin interface with the 'Table structure' view selected. The left sidebar shows a database tree with 'hck' selected, containing 'New', 'parents', 'students', 'tutor', 'information_schema', 'mysql', 'performance_schema', 'phpmyadmin', and 'test'. The main panel displays the structure of the 'tutor' table with 6 columns.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	id	int(10)			No	None			Change Drop More
<input type="checkbox"/> 2	full_name	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 3	email	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 4	phone_num	int(10)			No	None			Change Drop More
<input type="checkbox"/> 5	address	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 6	gender	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More

7. Insert the data using SQL Commands in all the table. (3 data)

hck

- New
- parents
- students
- tutor
- information_schema
- mysql
- performance_schema
- phpmyadmin
- test

Showing rows 0 - 3 (4 total, Query took 0.0002 seconds.)

`SELECT * FROM `parents``

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows:

Extra options

id	full_name	email	phone_num	address	gender
1	ram shah	ram@gmail.com	1123456732	gorkha	male
2	the rock	rock@gmail.com	1234567891	USA	male
1	maskey prasana	maskey@gamil.com	123456712	toileT	OTHER
3	maskey jerry	jerry@gmail.com	2147483647	lokanthali	male

hck

- New
- parents
- students
- tutor
- information_schema
- mysql
- performance_schema
- phpmyadmin
- test

Showing rows 0 - 2 (3 total, Query took 0.0002 seconds.)

`SELECT * FROM `students``

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows:

Extra options

id	full_name	email	phone_num	address	gender
2	jonny papa	jonny@gmail.com	1234567890	lalitpur	male
1	alan shah	shahalan020@gmail.com	2147483647	pepsicola	male
3	arya ghimire	arya@gmail.com	2147483647	lokanthali	female

hck

- New
- parents
- students
- tutor
- information_schema
- mysql
- performance_schema
- phpmyadmin
- test

Showing rows 0 - 2 (3 total, Query took 0.0002 seconds.)

`SELECT * FROM `tutor``

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows:

Extra options

id	full_name	email	phone_num	address	gender
1	binod pathak	binod@gmail.com	1234567890	lalitpur	male
2	addrash khadka	khadka@gmail.com	987654321	lalitpur	male
3	shrestha shreastha	shrestha@gmail.com	2147483647	kathmandu	female

8. Display the all data of the table Tutors.

Showing rows 0 - 2 (3 total, Query took 0.0002 seconds.)

```
SELECT * FROM `tutor`
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

id	full_name	email	phone_num	address	gender
1	binod pathak	binod@gmail.com	1234567890	lalitpur	male
2	addrash khadka	khadka@gmail.com	987654321	lalitpur	male
3	shrestha shreastha	shrestha@gmail.com	2147483647	kathmandu	female

9. Display only male students from table Students.

```
SELECT * FROM `students` WHERE gender='male';
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

id	full_name	email	phone_num	address	gender
2	jonny papa	jonny@gmail.com	1234567890	lalitpur	male
1	alan shah	shahalan020@gmail.com	2147483647	pepsicola	male

10. Drop column Parents using SQL command.

```
1 ALTER TABLE parents
2 DROP COLUMN gender;
```

id	full_name	email	phone_num	address
1	ram shah	ram@gmail.com	1123456732	gorkha
2	the rock	rock@gmail.com	1234567891	USA
1	maskey prasana	maskey@gamil.com	123456712	toileT
3	maskey jerry	jerry@gmail.com	2147483647	lokanthali

11. Delete a row in student using SQL command.

```
1 DELETE FROM students WHERE id = 03;
```

id	full_name	email	phone_num	address	gender
2	jonny papa	jonny@gmail.com	1234567890	lalitpur	male
1	alan shah	shahalan020@gmail.com	2147483647	pepsicola	male