**Important Questions**

1. Difference between Session and cookies
2. What are Superglobal variables
3. What is MVC??
4. Differnce between Abstract class and interface
5. Can we use non static methods in static methods?
6. Is is mandatory to implement all methods of interface?
7. Difference between WHERE and HAVING?

Ans: 1. WHERE clause can be used with - Select, Insert, and Update statements, where as HAVING clause can only be used with the Select statement.

-2. WHERE filters rows before aggregation (GROUPING), where as, HAVING filters groups, after the aggregations are performed.

-3. Aggregate functions cannot be used in the WHERE clause, unless it is in a sub query contained in a HAVING clause, whereas, aggregate functions can be used in Having clause.

-4. Filtering Groups: WHERE clause is used to filter rows before aggregation, where as HAVING clause is used to filter groups after aggregations

-ex. SELECT

FROM

WHERE

GROUP BY

HAVING

1. **Different types of joins**

**Ans:** SQL JOIN is a method to retrieve data from two or more database tables.

- As per SQL concern and advancement, there are 3-types of joins and all RDBMS joins can be achvied using these types of joins.:

-(INNER) JOIN: Returns records that have matching values in both tables

- LEFT (OUTER) JOIN: Return all records from the left table, and the matched records from the right table

-RIGHT (OUTER) JOIN: Return all records from the right table, and the matched records from the left table

-FULL (OUTER) JOIN: Return all records when there is a match in either left or right table

1. Differnce between INNER and Left join
2. What is jQuery Ajax?
3. Differnce between GET, POST methods
4. How to secure cookies?
5. **What is PDO?**

**Ans:** PDO is an acronym for PHP Data Objects. PDO is a lean, consistent way to access databases.

-This means developers can write portable code much easier. PDO is not an abstraction layer like PearDB.

-PDO aims to provide a consistent API that means when a database engine is changed, the code changes to reflect this should be minimal. When using PDO, your code will normally "just work" across many database engines, simply by changing the driver you're using.

-In addition to being cross-database compatible, PDO also supports prepared statements, stored procedures and more, whilst using the MySQL Driver.

-PDO is a more like a data access layer which uses a unified API (Application Programming Interface).

-The PHP Data Objects (PDO) extension defines a lightweight, consistent interface for accessing databases in PHP.

-Note:- note that you cannot perform any database functions using the PDO extension by itself; you must use a database-specific PDO driver to access a database server.

-PDO ships with PHP 5.1, and is available as a PECL extension for PHP 5.0;

-PDO requires the new OO features in the core of PHP 5, and so will not run with earlier versions of PHP Program.

-PDO's provide a way to add user inputs into sql statements in a way such that the resulting query is relatively safe against sql injection attacks.

1. **What is PEAR?**

**Ans:** PEAR is short for "PHP Extension and Application Repository" and is pronounced just like the fruit. The purpose of PEAR is to provide:

A structured library of open-source code for PHP users

A system for code distribution and package maintenance

A standard style for code written in PHP, specified here

The PHP Extension Community Library (PECL), see more below

A web site, mailing lists and download mirrors to support the PHP/PEAR community

1. **Which function is used for ajax call?**

**Ans:**$.ajax()

1. **How to list databases**

**Ans**: show databases;

1. **How to execute php script by command line?**

**Ans**: php filename or

for Interactive mode enabled:-

>php -a

> echo ‘hi’;

1. **How to start mysql by command line in Linux?**

**Ans** sudo service mysql start

1. **How to acces mysql from command line in Linux?**

**Ans:** mysql -u root -p

1. **How to start apache server?**

**Ans:** sudo service apache2 start

1. **Difference between ajax succes and complete?**

**Ans:** .**success**() only gets called if your webserver responds with a 200 OK HTTP header - basically when everything is fine.

However, .**complete**() will always get called no matter if the ajax call was successful or not - maybe it outputted errors and returned an error - .complete() will still get called.

It's worth mentioning that .**complete**() will get called after .success() gets called - if it matters to you.

1. **Different selectors in Jquery?**

**Ans:** $("#Lastname") =>ID

$(".intro") => Class

$(".intro, #Lastname")=>Group element by id and class

$("h1")=> element name

$("h1, p")=> Group element by element name

1. **What is CASE in Mysql? Syntax?**

**Ans:** The CASE function lets you evaluate conditions and return a value when the first condition is met (like an IF-THEN-ELSE statement).

CASE expression

WHEN condition1 THEN result1

WHEN condition2 THEN result2

...

WHEN conditionN THEN resultN

ELSE result

END

1. **what will happen if we declare constructor as private/protected? Object will be created?**

**Ans**: Yes, It means that (without reflection) constructor wont be accessible outside of your class so other classes wont be able to call it. Only members of your class will be bale to create its object.

1. What is difference between MYISAM and InnoDB?

**Ans:**

**MYISAM -**mysql Indexed Sequential Access Method

-MYISAM supports Table-level Locking

-MyISAM designed for need of speed

-MyISAM was the default storage engine for the MySQL relational database management system versions prior to 5.5

-MyISAM does not support foreign keys hence we call MySQL with MYISAM is DBMS

-MyISAM stores its tables, data and indexes in diskspace using separate three different files. (tablename.FRM, tablename.MYD, tablename.MYI)

-MYISAM not supports transaction. You cannot commit and rollback with MYISAM. Once you issue a command it’s done.

-MYISAM supports fulltext search

-You can use MyISAM, if the table is more static with lots of select and less update and delete.

**INNODB:**

-InnoDB supports Row-level Locking

-InnoDB designed for maximum performance when processing high volume of data

-InnoDB support foreign keys hence we call MySQL with InnoDB is RDBMS

-InnoDB stores its tables and indexes in a tablespace

-InnoDB supports transaction. You can commit and rollback with InnoDB

1. What is php autoloader?

**Ans:** -PHP 5 introduced the magic function \_\_autoload() which is automatically called when your code references a class or interface that hasn’t been loaded yet.

-The major drawback to the \_\_autoload() function is that you can only provide one autoloader with it. PHP 5.1.2 introduced spl\_autoload() which allows you to register multiple autoloader functions, and in the future the \_\_autoload() function will be deprecated.

1. What is .htaccess? Why do use and where?

**Ans:** It's not part of PHP; it's part of Apache.

.htaccess is a configuration file for use on web servers running the Apache Web Server software.

-When a .htaccess file is placed in a directory which is in turn 'loaded via the Apache Web Server', then the .htaccess file is detected and executed by the Apache Web Server software.

-These .htaccess files can be used to alter the configuration of the Apache Web Server software to enable/disable additional functionality and features that the Apache Web Server software has to offer.

-These facilities include basic redirect functionality, for instance if a 404 file not found error occurs, or for more advanced functions such as content password protection or image hot link prevention.

-Whenever any request is sent to the server it always passes through .htaccess file. There are some rules are defined to instruct the working.

1. Difference between UNION and UNION ALL?

**Ans:**-UNION removes duplicate records (where all columns in the results are the same), UNION ALL does not.

-There is a performance hit when using UNION instead of UNION ALL, since the database server must do additional work to remove the duplicate rows, but usually you do not want the duplicates (especially when developing reports).

-Both UNION and UNION ALL concatenate the result of two different SQLs. They differ in the way they handle duplicates.

-UNION performs a DISTINCT on the result set, eliminating any duplicate rows.

-UNION ALL does not remove duplicates, and it therefore faster than UNION.

1. Diifernce between primary key and uniquie key?

**Ans:** Primary Key:

-There can only be one primary key in a table

-In some DBMS it cannot be NULL - e.g. MySQL adds NOT NULL

-Primary Key is a unique key identifier of the record

-there can be only one;

-it cannot be nullable; and

-it must be unique.

**Unique Key:**

-Can be more than one unique key in one table

-Unique key can have NULL values

-It can be a candidate key

-Unique key can be NULL and may not be unique.

**Index key:**

-An **Index**is a separate object in a database that optimizes the storage of table records and help **quick retrieval** of records.

1. What are constants in PHP? How to declare constants??

**Ans: -**

-A constant is an identifier (name) for a simple value. The value cannot be changed during the script.

-A valid **constant** name starts with a letter or underscore (no $ sign before the constant name).

Note: Unlike variables, constants are automatically global across the entire script.

ex. const FOO = 'BAR';

define('FOO', 'BAR');

The fundamental difference between those two ways is that **const** defines constants at compile time, whereas **define** defines them at run time. This causes most of **const's** disadvantages.

-Some disadvantages of **const** are:**const** cannot be used to conditionally define constants. To **define** a global constant, it has to be used in the outermost scope:

-Advantage- As **consts** are language constructs and defined at compile time they are a bit faster than define()s.

1. OOPs , OOPs fetures inheritance, polimorphism, encapsulation, interface, abstract classes
2. Difference between ORDER BY and GROUP BY? Query

**Ans:-**ORDER BY alters the order in which items are returned.

-The GROUP BY statement is often used with aggregate functions (COUNT, MAX, MIN, SUM, AVG) to group the result-set by one or more columns.

1. How to improve performance of SQL select queries??

**Ans:**

* 1. Limit Size of Your Working Data Set
  2. check for indexes
  3. work with the smallest data set required
  4. remove unnecessary fields and tables and
  5. remove calculations in your JOIN and WHERE clauses.
  6. Do not use the set operator UNION if the objective can be achieved through an UNION ALL.
  7. Do not use the keyword DISTINCT if the objective can be achieved otherwise.
  8. SQL statements should be formatted consistently (e.g the keywords should be in CAPS only) to aid readability.
  9. Use meaningful aliases for tables/views
  10. If the selective predicate is in the sub query, then use IN.
  11. Use equi-joins whenever possible, they improve SQL efficiency

1. How to improve performance while transfering huge records from table1 to table2?

Ans:

-INSERT INTO persons\_table select \* from customer\_table where person\_name = 'tom';

-DELETE FROM customer\_table where person\_name = 'tom'

1. How to improve performance while uploading huge records to server?.

-Instead, for large bulk operations it is always best to predetermine whether a record would be inserted or updated before passing the commit to the database and then sending 2 transactions to the database.

1. There is array $numbers = array(1,2,.......,100);

Without using any lopps conver it into string separated by ,

Ans: The implode() function returns a string from the elements of an array.

implode(separator,array);

-separator Optional. Specifies what to put between the array elements. Default is "" (an empty string)

1. What is Normalization?

Ans:

-Normalization is a database design technique which organizes tables in a manner that reduces redundancy and dependency of data.

-It divides larger tables to smaller tables and links them using relationships.

Type: 1NF

2NF

3NF

1. What is SQL injection? How we can prevent it?

**Ans:**

SQL injection is a code injection technique that might destroy your database.

-SQL injection is one of the most common web hacking techniques.

-SQL injection is the placement of malicious code in SQL statements, via web page input.

-A SQL Injection attack is a form of attack that comes from user input that has not been checked to see that it is valid. The objective is to fool the database system into running malicious code that will reveal sensitive information or otherwise compromise the server.

-There are two main types of attacks. First-order attacks are when the attacker receives the desired result immediately, either by direct response from the application they are interacting with or some other response mechanism, such as email. Second-order attacks are when the attacker injects some data that will reside in the database, but the payload will not be immediately activated.

**Prevention=>**

1. Employ comprehensive data sanitization. Websites must filter all user input. Ideally, user data should be filtered for context

2. Use a web application firewall.

3. Limit database privileges by context.

4. Avoid constructing SQL queries with user input.

5. Eliminate unnecessary database capabilities,

1. Default time of session? How to destroy session manually?

**Ans:** It depends on the server configuration or the relevant directives session.gc\_maxlifetime in php.ini.

-Typically the default is 24 minutes (1440 seconds), but your webhost may have altered the default to something else.

-session\_destroy() destroys all of the data associated with the current session. It does not unset any of the global variables associated with the session, or unset the session cookie. To use the session variables again, session\_start() has to be called.

1. What are difference between require and include?

**Ans:**

-include() will throw a warning if it can't include the file, but the rest of the script will run.

-require() will throw an E\_COMPILE\_ERROR and halt the script if it can't include the file.

-The include\_once() and require\_once() functions will not include the file a second time if it has already been included

1. What are different tables(Engine) present in MySql, which one is defaulr?

**Ans:**Following tables (Storage Engine) we can create:

-1. MyISAM(The default storage engine IN MYSQL Each MyISAM table is stored on disk in three files. The files have names that begin with the table name and have an extension to indicate the file type. An .frm file stores the table format. The data file has an .MYD (MYData) extension. The index file has an .MYI (MYIndex) extension. )

-2. InnoDB(InnoDB is a transaction-safe (ACID compliant) storage engine for MySQL that has commit, rollback, and crash-recovery capabilities to protect user data.)

-3. Merge

-4. Heap (MEMORY)(The MEMORY storage engine creates tables with contents that are stored in memory. Formerly, these were known as HEAP tables. MEMORY is the preferred term, although HEAP remains supported for backward compatibility. )

-5. BDB (BerkeleyDB)(Sleepycat Software has provided MySQL with the Berkeley DB transactional storage engine. This storage engine typically is called BDB for short. BDB tables may have a greater chance of surviving crashes and are also capable of COMMIT and ROLLBACK operations on transactions)

1. How can we send mail using Javascript??
2. **What are advatages of stored procedures, triggered and indexes?**

Ans.

1.Advsntsge of Stored Procedures:

-Stored Procedures are precompiled one.

-it is the group of sql statements.

-stored procedure like a application programming.

-stored procedure is a fast one because it is already precompiled.

-stored procedure is the one is easy to maintain.

-A stored procedure is a user defined piece of code written in the local version of PL/SQL, which may return a value (making it a function) that is invoked by calling it explicitly.

2.Advantage of Triggers:

-Triggers is a special kind of procedure.

-the Main advantage of the trigger is automatic.

-whenever the table affected by insert update or delete

query that time the triggers will implicitely call.

-Triggers are basically the statements that are executed

automatically after any of the DML operation.

-Its basic advantage is that we dont need to invoke it again

and again it will be created once and serve us for the rest

of time.

-Triggers are not invoked from the Application end rather it

will be invoked from the Database Management System.

-Triggers are used to simply make a look on any of the

activity going on the client side.

-Syntax:

CREATE TRIGGER TriggerName

ON [dbo].[TableName]

FOR DELETE, INSERT, UPDATE

AS

BEGIN

SET NOCOUNT ON

END

3.Advantage of Indexs:

-The Main advantage of the indexes is speed.

-if the table having the indexes while selecting or filtering the row(s) 0r columns(s) ,the execution time very fast.

- but if you use the indexed table the insert update and delete will be slow.

4. views:

-In SQL, a view is a virtual table based on the result-set of an SQL statement.

-A view contains rows and columns, just like a real table. The fields in a view are fields from one or more real tables in the database.

-You can add SQL functions, WHERE, and JOIN statements to a view and present the data as if the data were coming from one single table.

-A view is a subset of a database that is generated from a query and stored as a permanent object.

-Views represent a subset of the data contained in a table. They can join and simplify multiple tables into one virtual table. They take up very little storage space because the database contains only the view definition, not the data.

**Differences in both of then Trigger vs procedure**

-Trigger can not be called manually where stored procedure can be called manually.

-Trigger executes automatically when event happens and can be use for reporting and data protection from deleting or dropping the table and data from database. We can prevent from trigger. On the other hand, a stored procedure has to be called by somebody.

-A stored procedure can be called from front end (client application) but trigger can not be called from client application.

-We can execute a stored procedure whenever we want with the help of the exec command, but a trigger can only be executed whenever an event (insert, delete, and update) is fired on the table on which the trigger is defined.

-Stored procedure can take input parameters, but we can't pass parameters as input to a trigger.

-Stored procedures can return values but a trigger cannot return a value.

-We can use transaction statements like begin transaction, commit transaction, and rollback inside a stored procedure but we can't use transaction statements inside a trigger

-We can call a stored procedure from the front end (.asp files, .aspx files, .ascx files, etc.) but we can't call a trigger from these files.

-A trigger fires after an insert, update, or delete. A stored procedure is a server-side program that is run when you invoke it.

1. Inheritance..What type of inheritance supported in PHP?
2. What is garbage collection? Default time? Refresh time?
3. Difference between char and varchar data type??
4. What is default session time and path??
5. What are magic methods in php?
6. What is CURL?
7. Differemce between == and === ??
8. Difference between split & explode, imllode??
9. How can enable error reporting in Php?
10. What are trailts?
11. Constructor and destructor
12. What are getters and setters.. why are they important??
13. Do you use composer?? benefits??
14. unit testing
15. What is the difference between MySQL, MySQLi and PDO?

**Ans:**

-The **mysql** is the historical API

-The **mysqli** is a new version of the historical API. It should perform better and have a better set of function. Also, the API is object-oriented.

-PDO\_MySQL, is the MySQL for PDO. PDO has been introduced in PHP, and the project aims to make a common API for all the databases access, so in theory you should be able to migrate between RDMS without changing any code (if you don't use specific RDBM function in your queries), also object-oriented.

1. What are indexes ?

Ans:

-An index is used to speed up the performance of queries. It does this by reducing the number of database data pages that have to be visited/scanned.

-A database index is a data structure that improves the speed of operations in a table. Indexes can be created using one or more columns, providing the basis for both rapid random lookups and efficient ordering of access to records.

-Practically, indexes are also a type of tables, which keep primary key or index field and a pointer to each record into the actual table.

-The users cannot see the indexes, they are just used to speed up queries and will be used by the Database Search Engine to locate records very fast.

-The INSERT and UPDATE statements take more time on tables having indexes, whereas the SELECT statements become fast on those tables. The reason is that while doing insert or update, a database needs to insert or update the index values as well.

ex. unique index

-CREATE UNIQUE INDEX index\_name ON table\_name ( column1, column2,...);

-display all index on table  **SHOW INDEX FROM *table\_name***

-Add / delete index **ALTER TABLE testalter\_tbl ADD/DROP INDEX (c);** .

-type-**Unique,cluster ex. Serch details by name in phonebook,non-cluster ex. Serch deatils by Address,state**

1. Run time and compile time polymorphism

|  |  |
| --- | --- |
| **Compile time Polymorphism** | **Run time Polymorphism** |
| In Compile time Polymorphism, call is resolved by the **compiler**. | In Run time Polymorphism, call is **not** resolved by the compiler. |
| It is also known as **Static binding, Early binding** and **overloading** as well. | It is also known as **Dynamic binding, Late binding** and **overriding** as well. |
| **Overloading** is compile time polymorphism where more than one methods share the same name with different parameters or signature and different return type. | **Overriding** is run time polymorphism having same method with same parameters or signature, but associated in a class & its subclass. |
| It is achieved by **function** overloading and **operator**overloading. | It is achieved by **virtual functions** and **pointers**. |
| It provides **fast** **execution** because known early at compile time. | It provides **slow** **execution** as compare to early binding because it is known at runtime. |
| Compile time polymorphism is **less flexible** as all things execute at compile time. | Run time polymorphism is **more flexible** as all things execute at run time. |

**66.Is login works when cookies disabled on browser ?**

**Ans: NO work**

-A visitor accessing your web site is assigned a unique id, the so-called session id. This is either stored in a cookie on the user side or is propagated in the URL

-If session.use\_cookies = 1 (Cookie enabled.)

-If session.use\_cookies = 0 (Cookie disabled.)

-If session.use\_cookies = 1 then session stores the sessionId into cookie. Calling sessionId() get the stored sessionId from cookie and saved data into session array will be found on all the pages. If session.use\_cookies = 0 In this case session does not store sessionId into cookie and you will get each time a new sessionId using session\_id() and data stored into session on other pages will not be found on another pages.

**67.**[**How do PHP sessions work when cookies are disabled?**](https://stackoverflow.com/questions/613967/how-do-php-sessions-work-when-cookies-are-disabled)

PHP will do 2 things:

* It will rewrite all links to pass an extra GET parameter, usually PHPSESSID but this can be changed by setting session.name in php.ini
* It will add a hidden input with the same name after all <form> opening tags.

Note that this is a dangerous thing to do, because anyone who you e.g. copy/paste a URL to containing an PHPSESSID parameter will be able to share your login session on the site - the webserver has no easy way of telling that you are different from the person you sent the link to...

**68. What is web clustering?**

**Ans.**Organize data circulated over the Web into groups / collections in order to facilitate data availability & accessing, and at the same time meet

user preferences.

The initial idea was to define the correlation distance / similarity measure between any two “elements”.

Why use Web Clustering?

Increasing Web information accessibility

Decreasing lengths in Web navigation pathways

Improving Web users requests servicing

Improving information retrieval

Improving content delivery on the Web

Understanding users’ navigation behavior

Integrating various data representation standards

Extending current Web information organizational practice

-Clustered hosting is a type of [web hosting](https://en.wikipedia.org/wiki/Web_hosting) that spreads the load of hosting across multiple physical machines, or [node](https://en.wikipedia.org/wiki/Node_(networking)), increasing availability and decreasing the chances of one service (e.g., [FTP](https://en.wikipedia.org/wiki/FTP) or [email](https://en.wikipedia.org/wiki/Email)) affecting another (e.g., [MySQL](https://en.wikipedia.org/wiki/MySQL)). Many large websites run on clustered hosting solutions, for example, large discussion forums will tend to run using multiple front-end webservers with multiple back-end database servers.

-Clustered hosting is similar to [cloud hosting](https://en.wikipedia.org/wiki/Cloud_hosting), in that the resources of many machines are available for a website to utilize on demand, making scalability a large advantage to a clustered hosting solution.

**69. what is application clustering (software clustering)**

**Ans.**

Application clustering (sometimes called software clustering) is a method of turning multiple computer servers into a cluster (a group of servers that acts like a single system). Clustering software is installed in each of the servers in the group. Each of the servers maintains the same information and collectively they perform administrative tasks such as load balancing, determining node failures, and assigning failover duty. The other clustering method, hardware clustering, requires that specialized hardware be installed in a single server that controls the cluster.

**70.Write array element count without using count variable.**

**Ans.**

Using forloop to count element

71. **cron job**

**Ans: set the cron job from cpanel and terminal**

**LINUX: open file using commnad- crontab -e**

-The cronTab, or "Cron Table", is a Linux system process / daemon which facilitates the scheduling of repetitive tasks thereby easing up our day to day routine.

-Cron is a scheduler which is time-dependent. This feature is available in Mac, FreeBSD and Linux as well. The scheduled activities which are performed through them are referred to as cron jobs.

Minutes [0-59]

| Hours [0-23]

| | Days [1-31]

| | | Months [1-12]

| | | | Days of the Week [Numeric, 0-6]

| | | | |

\* \* \* \* \* home/path/to/command/the\_command.sh

Minutes represents the minutes of a given hour, 0-59 respectively.

Hours represents the hours of a given day, 0-23 respectively.

Days represents the days of a given month, 1-31 respectively.

Months represents the months of a given year, 1-12 respectively.

Day of the Week represents the day of the week, Sunday through Saturday, numerically, as 0-6 respectively.

\* \* \* \* \* home/path/to/command/the\_command.sh

Commas is used to create a comma separated list of values for any of the cron columns.

Dashes is used to specify a range of values.

Asterisksis used to specify 'all' or 'every' value

ex.

# For example, you can run a backup of all your user accounts

# at 5 a.m every week with:

# 0 5 \* \* 1 tar -zcf /var/backups/home.tgz /home/

example, if one wanted to schedule a task for 12am on the first day of every month it would look something like this:

0 0 1 **\*** **\*** home**/**path**/**to**/**command**/**the\_command.sh

**How Does It Work?**

A cron job in PHP powered systems, in particular, is often used to ensure timely execution of important tasks including executing or scheduling a code snippet. They are often used for system maintenance

A Cron ‘Daemon’ usually exists on the systems mentioned above. Daemon is basically a program which keeps on executing all the time in the background. This program is actually responsible for execution of scheduled tasks as specified. A configuration file called ‘Crontab’ lies in the schedule. All the timers and tasks info lies there.

72.**How many ways we can pass the variable through the navigation between the pages?**

Register the variable into the session  
Pass the variable as a cookie  
Pass the variable as part of the URL

**73.What is the functionality of the function strstr and stristr?**

strstr() returns part of a given string from the first occurrence of a given substring to the end of the string.  
For example:strstr("user@example.com","@") will return "@example.com".  
stristr() is idential to strstr() except that it is case insensitive.

74.**What are encryption functions in PHP?**

CRYPT(), MD5()

**75.How to store the uploaded file to the final location?**

move\_uploaded\_file( string filename, string destination)

**76. List out the predefined classes in PHP?**

Directory  
stdClass  
\_\_PHP\_Incomplete\_Class  
exception  
php\_user\_filter

**77. How do you define a constant?**

Constants in PHP are defined using define() directive, like define("MYCONSTANT", 100);

78. **How do you pass a variable by value in PHP?**

Just like in C++, put an ampersand in front of it, like $a = &$b;

 79. **What does a special set of tags <?= and ?> do in PHP?**

 The output is displayed directly to the browser.

80. **How do you call a constructor for a parent class?**

 parent::constructor($value)

 81. **What’s the special meaning of \_\_sleep and \_\_wakeup?**

\_\_sleep returns the array of all the variables that need to be saved, while \_\_wakeup retrieves them.

**82. How can we get second of the current time using date function?**

<?php  
$second = date(“s”);  
?>

**83. What are the Formatting and Printing Strings available in PHP?**  
  
printf()-    Displays a formatted string  
sprintf()-Saves a formatted string in a variable  
fprintf()    -Prints a formatted string to a file  
number\_format()-Formats numbers as strings

**84. How can we find the number of rows in a result set using PHP?**

$result = mysql\_query($sql, $db\_link);  
$num\_rows = mysql\_num\_rows($result);  
echo "$num\_rows rows found";

**85. What Is a Session?**

A session is a logical object created by the PHP engine to allow you to preserve data across subsequent HTTP requests. Sessions are commonly used to store temporary data to allow multiple PHP pages to offer a complete functional transaction for the same visitor.

default session time in PHP is 1440 seconds or 24 minutes  
Default session save path id temporary folder /tmp

**86. How can we register the variables into a session?**

<?php  
session\_register($ur\_session\_var);  
?>

MySql

* Complex Query
* Triggers
* Views
* Store Procedures
* Storage Engines

Web Application

* Security Topics
  + Attacks

- What is composer.json file?

- What is dependency injection?

- What is MySQL injection?

- What is CSRF?

- What is XSS?

- What is NAMESPACE?

- What is Class and Interface?

- What is difference between this and self keyword?

- What is difference between static and final keyword?

- What is FULLTEXT index?

- What is difference between primary key and unique key?

- What is service container in symfony2?

- How to change php.ini configuration runtime?

- What is difference between MyISAM and Innodb storage Engine?

- Give storage engines use MySQL

- What is overloading and overriding?

- Folder structure of Symfony2 and version

- Folder structure of codeigniter and version

1. Difference between Session and cookies

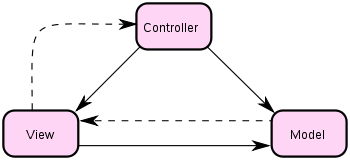
|  |  |
| --- | --- |
| **Cookies** | **Sessions** |
| Cookies are stored in browser as text file format. | Sessions are stored in server side. |
| It is stored limit amount of data. | It is stored unlimited amount of data |
| It is only allowing 4kb[4096bytes]. | It is holding the multiple variable in sessions. |
| It is not holding the multiple variable in cookies. | It is holding the multiple variable in sessions. |
| we can accessing the cookies values in easily. So it is less secure. | we cannot accessing the session values in easily.So it is more secure. |
| setting the cookie time to expire the cookie. | using session\_destory(), we we will destroyed the sessions. |
| The setcookie() function must appear BEFORE the <html> tag. | The session\_start() function must be the very first thing in your document. Before any HTML tags. |

1. What are Superglobal variables

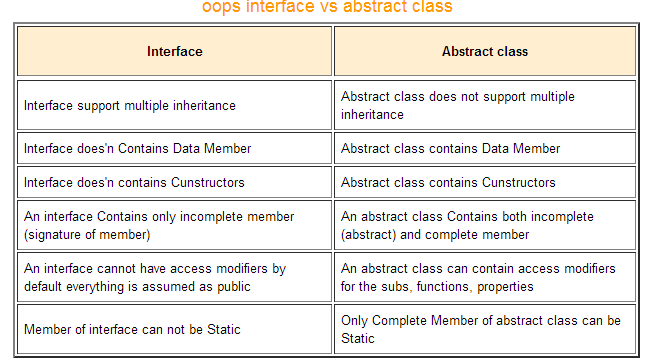
Some pre-defined variables are available in php which is know as **superglobals** variable, which means that they are always accessible, regardless of scope - and you can access them from any function, class or file without having to do anything special.

List of superglobal variables are give below;

* $GLOBALS
* $\_SERVER
* $\_REQUEST
* $\_POST
* $\_GET
* $\_FILES
* $\_ENV
* $\_COOKIE
* $\_SESSION

1. What is MVC??

MVC, or Model-View-Controller is a software architecture, or design pattern, that is used in software engineering, whose fundamental principle is based on the idea that the logic of an application should be separated from its presentation. Put simply, I would say that MVC is simply a better way of separating the logic of your application from the display.

1.  Difference between Abstract class and interface

1. Can we use non static methods in static methods?

1. Is is mandatory to implement all methods of interface?

Ans: No

1. Difference between WHERE and HAVING?

The **HAVING** clause was added to **SQL** because the WHERE keyword could not be used with aggregate functions. ... **The difference between** the two is in the relationship to the GROUP BY clause: WHERE comes before GROUP BY; **SQL** evaluates the WHERE clause before it groups records

emp\_bonus

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| emp\_bonus   |  |  | | --- | --- | | **Employee** | **Bonus** | | A | 1000 | | B | 2000 | | A | 500 | | C | 700 | | B | 1250 | |
|  |

|  |  |
| --- | --- |
| **Employee** | **Sum(Bonus)** |
| A | 1500 |
| B | 3250 |
| C | 700 |

|  |
| --- |
| select employee, sum(bonus) from emp\_bonus  group by employee having sum(bonus) > 1000; |

So we can see that the difference between the having and where clause in sql is that the where clause can *not* be used with aggregates, but the having clause can. One way to think of it is that the having clause is an additional filter to the where clause.

1) Apart from SELECT queries, you can use WHERE clause with UPDATE and DELETE clause but HAVING clause can only be used with SELECT query.

2) WHERE clause is used for filtering rows and it applies on each and every row, while HAVING clause is used to filter groups in SQL.

3) One syntax level **difference between WHERE** **and HAVING** **clause** is that, former is used before GROUP BY clause, while later is used after GROUP BY clause.

4) When WHERE and HAVING clause are used together in a SELECT query with aggregate function,  WHERE clause is applied first on individual rows and only rows which pass the condition is included for creating groups. Once group is created, HAVING clause is used to filter groups based upon condition specified.

1. Different types of joins

Before we continue with examples, we will list the types of the different SQL JOINs you can use:

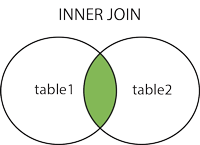
* **INNER JOIN**: Returns all rows when there is at least one match in BOTH tables
* **LEFT JOIN**: Return all rows from the left table, and the matched rows from the right table
* **RIGHT JOIN**: Return all rows from the right table, and the matched rows from the left table
* **FULL JOIN**: Return all rows when there is a match in ONE of the tables

JOIN:

If I do a LEFT JOIN, I get all the records that match in the same way and IN ADDITION I get an extra record for each unmatched record in the left table of the join - thus ensuring (in my example) that every AUTHOR gets a mention:

The INNER JOIN keyword selects all rows from both tables as long as there is a match between the columns in both tables.

### SQL INNER JOIN Syntax



SELECT *column\_name(s)*  
FROM *table1*  
INNER JOIN *table2*  
ON *table1.column\_name*=*table2.column\_name*;

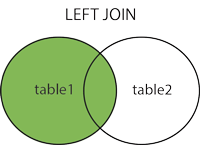
The INNER JOIN keyword selects all rows from both tables as long as there is a match between the columns. If there are rows in the "Customers" table that do not have matches in "Orders", these customers will NOT be listed.

SELECT Customers.CustomerName, Orders.OrderID  
FROM Customers  
INNER JOIN Orders  
ON Customers.CustomerID=Orders.CustomerID  
ORDER BY Customers.CustomerName;

## SQL LEFT JOIN Keyword

The LEFT JOIN keyword returns all rows from the left table (table1), with the matching rows in the right table (table2). The result is NULL in the right side when there is no match.

### SQL LEFT JOIN Syntax



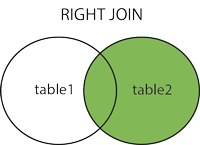
SELECT *column\_name(s)*  
FROM *table1*  
LEFT JOIN *table2*  
ON *table1.column\_name*=*table2.column\_name*;

SELECT Customers.CustomerName, Orders.OrderID  
FROM Customers  
LEFT JOIN Orders  
ON Customers.CustomerID=Orders.CustomerID  
ORDER BY Customers.CustomerName;

**Note:** The LEFT JOIN keyword returns all the rows from the left table (Customers), even if there are no matches in the right table (Orders).

## SQL RIGHT JOIN Keyword

The RIGHT JOIN keyword returns all rows from the right table (table2), with the matching rows in the left table (table1). The result is NULL in the left side when there is no match.



### SQL RIGHT JOIN Syntax

SELECT *column\_name(s)*  
FROM *table1*  
RIGHT JOIN *table2*  
ON *table1.column\_name*=*table2.column\_name*;

or:

SELECT *column\_name(s)*  
FROM *table1*  
RIGHT OUTER JOIN *table2*  
ON *table1.column\_name*=*table2.column\_name*;

**PS!** In some databases RIGHT JOIN is called RIGHT OUTER JOIN

SELECT Orders.OrderID, Employees.FirstName  
FROM Orders  
RIGHT JOIN Employees  
ON Orders.EmployeeID=Employees.EmployeeID  
ORDER BY Orders.OrderID;

**Note:** The RIGHT JOIN keyword returns all the rows from the right table (Employees), even if there are no matches in the left table (Orders).

## SQL FULL OUTER JOIN Keyword

The FULL OUTER JOIN keyword returns all rows from the left table (table1) and from the right table (table2).

The FULL OUTER JOIN keyword combines the result of both LEFT and RIGHT joins.

### SQL FULL OUTER JOIN Syntax

SELECT *column\_name(s)*  
FROM *table1*  
FULL OUTER JOIN *table2*  
ON *table1.column\_name*=*table2.column\_name*;

SELECT Customers.CustomerName, Orders.OrderID  
FROM Customers  
FULL OUTER JOIN Orders  
ON Customers.CustomerID=Orders.CustomerID  
ORDER BY Customers.CustomerName;

1. Difference between INNER and Left join

1. What is jQuery Ajax?

1. Difference between GET, POST methods

Parameters remain in browser history because they are part of the URL

* Can be bookmarked.
* GET method should not be used when sending passwords or other sensitive information.
* 7607 character maximum size.
* Url example: page2.php?category=sport

**POST:**

* Parameters are not saved in browser history.
* Can not be bookmarked.
* POST method used when sending passwords or other sensitive information.
* 8 Mb max size for the POST method.

Url example: page2.php

1. How to secure cookies?

setcookie(*name,value,expire,path,domain,secure,httponly*);

|  |  |
| --- | --- |
| *secure* | Optional. Specifies whether or not the cookie should only be transmitted over a secure HTTPS connection. TRUE indicates that the cookie will only be set if a secure connection exists. Default is FALSE |
| *httponly* | Optional. If set to TRUE the cookie will be accessible only through the HTTP protocol (the cookie will not be accessible by scripting languages). This setting can help to reduce identity theft through XSS attacks. Default is FALSE |

1. What is PDO?

The PDO ( PHP Data Objects ) extension defines a lightweight, consistent interface for accessing databases in PHP. if you are using the PDO API, you could switch the database server you used, from say PgSQL to MySQL, and only need to make minor changes to your PHP code. While PDO has its advantages, such as a clean, simple, portable API but its main disadvantage is that it doesn't allow you to use all of the advanced features that are

vailable in the latest versions of MySQL server. For example, PDO does not allow you to use MySQL's support for Multiple Statements.

Just need to use below code for connect mysql using PDO

try {

$dbh = new

PDO("mysql:host=$hostname;dbname=databasename",

$username, $password);

$sql = "SELECT \* FROM employee";

foreach ($dbh->query($sql) as $row)

{

print $row['employee\_name'] .' - '. $row['employee\_age']

;

}

}

catch(PDOException $e)

{

echo $e->getMessage();

}

1. What is PEAR?

PEAR(PHP Extension and Application Repository) is a framework and repository for reusable PHP components. PEAR is a code repository containing all kinds of php code snippets and libraries.

PEAR also offers a command-line interface that can be used to automatically install

"packages". PEAR is a framework and distribution system for reusable PHP components.The project seeks to provide a structured library of code, maintain a system for distributing code and for managing code packages, and promote a standard coding style.

PEAR is broken into three classes: PEAR Core Components, PEAR Packages, and PECL Packages. The Core

Components include the base classes of PEAR and PEAR\_Error, along with database,

HTTP, logging, and e-mailing functions. The PEAR Packages include functionality providing for authentication, networking, and file system features, as well as tools for working with XML and HTML templates.

1. Which function is used for ajax call?

1. How to list databases

Ans: show databases;

1. How to execute php script by command line?

Ans: php file path

1. How ro start mysql by command line in Linux?

1. How to start apache server?

Answer: service apache2 reload or

/etc/init.d/apache2 reload

1. Difference between ajax success and complete?

Answer:

.success() only gets called if your webserver responds with a 200 OK HTTP header - basically when everything is fine.

However, .complete() will always get called no matter if the ajax call was successful or not - maybe it outputted errors and returned an error - .complete() will still get called.

1. Different selectors in Jquery?

|  |  |  |
| --- | --- | --- |
| Selector | Example | Selects |
| [\*](https://www.w3schools.com/jquery/sel_all.asp) | $("\*") | All elements |
| [#*id*](https://www.w3schools.com/jquery/sel_id.asp) | $("#lastname") | The element with id="lastname" |
| [.*class*](https://www.w3schools.com/jquery/sel_class.asp) | $(".intro") | All elements with class="intro" |
| [.*class,*.*class*](https://www.w3schools.com/jquery/sel_multiple_classes.asp) | $(".intro,.demo") | All elements with the class "intro" or "demo" |
| [*element*](https://www.w3schools.com/jquery/sel_element.asp) | $("p") | All <p> elements |
| [*el1*,*el2*,*el3*](https://www.w3schools.com/jquery/sel_multiple_sel.asp) | $("h1,div,p") | All <h1>, <div> and <p> elements |
|  |  |  |
| [:first](https://www.w3schools.com/jquery/sel_first.asp) | $("p:first") | The first <p> element |
| [:last](https://www.w3schools.com/jquery/sel_last.asp) | $("p:last") | The last <p> element |
| [:even](https://www.w3schools.com/jquery/sel_even.asp) | $("tr:even") | All even <tr> elements |
| [:odd](https://www.w3schools.com/jquery/sel_odd.asp) | $("tr:odd") | All odd <tr> elements |
|  |  |  |
| [:first-child](https://www.w3schools.com/jquery/sel_firstchild.asp) | $("p:first-child") | All <p> elements that are the first child of their parent |
| [:first-of-type](https://www.w3schools.com/jquery/sel_firstoftype.asp) | $("p:first-of-type") | All <p> elements that are the first <p> element of their parent |
| [:last-child](https://www.w3schools.com/jquery/sel_lastchild.asp) | $("p:last-child") | All <p> elements that are the last child of their parent |
| [:last-of-type](https://www.w3schools.com/jquery/sel_lastoftype.asp) | $("p:last-of-type") | All <p> elements that are the last <p> element of their parent |
| [:nth-child(*n*)](https://www.w3schools.com/jquery/sel_nthchild.asp) | $("p:nth-child(2)") | All <p> elements that are the 2nd child of their parent |
| [:nth-last-child(*n*)](https://www.w3schools.com/jquery/sel_nthlastchild.asp) | $("p:nth-last-child(2)") | All <p> elements that are the 2nd child of their parent, counting from the last child |

1. What is CASE in Mysql? Syntax?

The CASE function lets you evaluate conditions and return a value when the first condition is met (like an IF-THEN-ELSE statement).

CASE *expression*  
    WHEN *condition1* THEN result1  
    WHEN *condition2* THEN result2  
   ...  
    WHEN conditionN THEN resultN  
    ELSE result  
END

what will happen if we declare constructor as private/protected? Object will be created?

1. What is difference between MYISAM and InnoDB?

InnoDB also implements transactions, foreign keys and relationship constraints while

MyISAM does not. ... InnoDB has row-level locking, MyISAM can only do full table-level

locking. InnoDB has better crash recovery. MyISAM has FULLTEXT search indexes,

InnoDB did not until MySQL 5.6 (Feb 2013)

MYISAM:

1. MYISAM supports Table-level Locking

2. MyISAM designed for need of speed

3. MyISAM does not support foreign keys hence we call MySQL with MYISAM is

DBMS

4. MyISAM stores its tables, data and indexes in diskspace using separate three

different files. (tablename.FRM, tablename.MYD, tablename.MYI)

5. MYISAM not supports transaction. You cannot commit and rollback with MYISAM.

Once you issue a command it’s done.

6. MYISAM supports fulltext search

7. You can use MyISAM, if the table is more static with lots of select and less update

and delete.

**INNODB**:

1. InnoDB supports Row-level Locking

2. InnoDB designed for maximum performance when processing high volume of data

3. InnoDB support foreign keys hence we call MySQL with InnoDB is RDBMS4. InnoDB stores its tables and indexes in a tablespace

5. InnoDB supports transaction. You can commit and rollback with InnoDB

1. What is php autoloader?

1. What is .htaccess? Why do use and where?

.htaccess files are configuration files of Apache Server

which provide

a way to make configuration changes on a per-directory

basis. A file,

containing one or more configuration directives, is placed

in a particular

document directory, and the directives apply to that

directory, and all

subdirectories thereof.

1. Difference between UNION and UNION ALL?

The **UNION ALL** command is equal to the **UNION** command, except that **UNION ALL** selects **all** values. **The difference between Union and Union all** is that **Union all** will not eliminate duplicate rows, instead it just pulls **all** rows from **all** tables fitting your query specifics and combines them into a table.

UNION removes duplicate records (where all columns in the results are the same), UNION ALL does not.

# UNION Example:

SELECT 'foo' AS bar UNION SELECT 'foo' AS bar

**Result:**

+-----+

| bar |

+-----+

| foo |

+-----+

1 row in set (0.00 sec)

# UNION ALL example:

SELECT 'foo' AS bar UNION ALL SELECT 'foo' AS bar

**Result:**

+-----+

| bar |

+-----+

| foo |

| foo |

+-----+

2 rows in set (0.00 sec)

UNION performs a DISTINCT on the result set, eliminating any duplicate rows.

UNION ALL does not remove duplicates, and it therefore faster than UNION.

1. Difference between primary key and unique key?

|  |  |  |
| --- | --- | --- |
|  | **PRIMARY KEY** | **UNIQUE KEY** |
| **NULL** | It doesn’t allow Null values. Because of this we refer PRIMARY KEY = UNIQUE KEY + Not Null CONSTRAINT | Allows Null value. But only one Null value. |
| **INDEX** | By default it adds a clustered index | By default it adds a UNIQUE non-clustered index |
| **LIMIT** | A table can have only one PRIMARY KEY Column[s] | A table can have more than one UNIQUE Key Column[s] |
| **CREATE SYNTAX** | Below is the sample example for defining a single column as a PRIMARY KEY column while creating a table:CREATE TABLE dbo.Customer ( Id INT NOT NULL PRIMARY KEY, FirstName VARCHAR(100), LastName VARCHAR(100), City VARCHAR(50) )  Below is the Sample example for defining multiple columns as PRIMARY KEY. It also shows how we can give name for the PRIMARY KEY:  CREATE TABLE dbo.Customer ( Id INT NOT NULL, FirstName VARCHAR(100) NOT NULL, LastName VARCHAR(100), City VARCHAR(50), CONSTRAINT PK\_CUSTOMER PRIMARY KEY (Id,FirstName) ) | Below is the sample example for defining a single column as a UNIQUE KEY column while creating a table:CREATE TABLE dbo.Customer ( Id INT NOT NULL UNIQUE, FirstName VARCHAR(100), LastName VARCHAR(100), City VARCHAR(50) )  Below is the Sample example for defining multiple columns as UNIQUE KEY. It also shows how we can give name for the UNIQUE KEY:  CREATE TABLE dbo.Customer ( Id INT NOT NULL, FirstName VARCHAR(100) NOT NULL, LastName VARCHAR(100), City VARCHAR(50), CONSTRAINT UK\_CUSTOMER UNIQUE (Id,FirstName) ) |
| **ALTER SYNTAX** | Below is the Syntax for adding PRIMARY KEY CONSTRAINT on a column when the table is already created and doesn’t have any primary key:ALTER TABLE dbo.Customer ADD CONSTRAINT PK\_CUSTOMER PRIMARY KEY (Id) | Below is the Syntax for adding UNIQUE KEY CONSTRAINT on a column when the table is already created:ALTER TABLE dbo.Customer ADD CONSTRAINT UK\_CUSTOMER UNIQUE (Id) |
| **DROP SYNTAX** | Below is the Syntax for dropping a PRIMARY KEY:ALTER TABLE dbo.Customer DROP CONSTRAINT PK\_CUSTOMER | Below is the Syntax for dropping a UNIQUE KEY:ALTER TABLE dbo.Customer DROP CONSTRAINT UK\_CUSTOMER |

### Primary Key

* Primary key cannot have a NULL value.
* Each table can have only one primary key.
* By default, Primary key is clustered index and data in the database table is physically organized in the sequence of clustered index.
* Primary key can be related with another table's as a Foreign Key.
* We can generated ID automatically with the help of Auto Increment field. Primary key supports Auto Increment value.

### Unique Key

* Unique Constraint may have a NULL value.
* Each table can have more than one Unique Constraint.
* By default, Unique key is a unique non-clustered index.
* Unique Constraint can not be related with another table's as a Foreign Key.
* Unique Constraint doesn't supports Auto Increment value.

### Foreign Key

* Foreign key is a field in the table that is primary key in another table.
* Foreign key can accept multiple null value.
* Foreign key do not automatically create an index, clustered or non-clustered. You can manually create an index on foreign key.
* We can have more than one foreign key in a table.
* There are actual advantages to having a foreign key be supported with a clustered index, but you get only one per table. What's the advantage? If you are selecting the parent plus all child records, you want the child records next to each other. This is easy to accomplish using a clustered index.
* Having a null foreign key is usually a bad idea. In the example below, the record in [dbo].[child] is what would be referred to as an "orphan record". Think long and hard before doing this.

1. What are constants in PHP? How to declare constants??

1. OOPs , OOPs features inheritance, polymorphism, encapsulation, interface, abstract classes

One of the main advantages of OO programming is its

ease of

modification; objects can easily be modified and added to

a system there

by reducing maintenance costs. OO programming is also

considered to be

better at modeling the real world than is procedural

programming. It

allows for more complicated and flexible interactions. OOShwetank Kumar Gupta-shwetankkg@gmail.com 2011

systems are

also easier for non-technical personnel to understand and

easier for

them to participate in the maintenance and enhancement

of a system

because it appeals to natural human cognition patterns.

For some systems, an OO approach can speed

development time since many

objects are standard across systems and can be reused.

Components that

manage dates, shipping, shopping carts, etc. can be

purchased and easily

modified for a specific system

1. Difference between ORDER BY and GROUP BY? Query

This is a question I’m frequently asked. On the surface, both clauses appear to do the same thing; that is sort sort data. But this is where their similarities end. In fact, both serve entirely different purposes.

* The ORDER BY clause’s purpose is to sort the query result by specific columns.
* The GROUP BY clause’s purpose is summarize unique combinations of columns values.

Before we get into their differences, consider the general setup of the SELECT statement:

Hide   Copy Code

SELECT columnlist

From table

GROUP BY columnA, columnB

ORDER BY columnlist

Notice that the ORDER BY clause appears at the end. You can use this as a clue to understand that the ORDER BY statement is used to sort the final result of the query. In fact, it can be used to sort results from a GROUP BY clause. Confused? I was at first!

Ok, let’s break it down.

## ORDER BY

The ORDER BY statement is used to sort values. You probably already knew that! So

Hide   Copy Code

SELECT SalesOrderID,

ProductID,

OrderQty\* UnitPrice As ExtendedPrice

FROM Sales.SalesOrderDetail

ORDER BY SalesOrderID

will sort the value, according to SalesOrderID.

Every row in the table is included in the result. The values are sorted in ascending order according to the SalesOrderID.

## GROUP BY

Contrast this to the GROUP BY clause, which is used to group like column values into a single row.

This is useful as it allows you to summarize information. For instance, you can use aggregate functions such as SUM and AVERAGE to calculate values.

In this example:

Hide   Copy Code

SELECT SalesOrderID,

SUM(OrderQty\* UnitPrice) As TotalPrice

FROM Sales.SalesOrderDetail

GROUP BY SalesOrderID

We are grouping by SalesOrderID and summing each order’s product prices to return the total. *This is the magic of the GROUP BY clause: it allows you to perform summary calculations on multiple rows*.

With the GROUP BY clause, not every row is included in the result. Instead, only unique combinations of SalesOrderID along with the sum are included.

Now the ORDER BY and GROUP BY can be used together. You may ask what is the point, if the results are already grouped by SalesOrderID, but what about ordering by the total price? You can do this as:

Hide   Copy Code

SELECT SalesOrderID,

SUM(OrderQty\* UnitPrice) As TotalPrice

FROM Sales.SalesOrderDetail

GROUP BY SalesOrderID

ORDER BY TotalPrice

To summarize, the key difference between order by and group by is:

* ORDER BY is used to sort a result by a list of columns or expressions.
* GROUP BY is used to create unique combinations of a list of columns that can be used to form summaries. A byproduct of this operation is that the grouping tends to be sorted; however, this isn’t a guarantee.

1. How to improve performance of SQL select queries??

1. How to improve performance while transfering huge records from table1 to table2?

1. How to improve performance while uploading huge records to server?.

1. There is array $numbers = array(1,2,.......,100);

Without using any loop convert it into string separated by ,

1. What is Normalization?

The normalization process involves getting our data to

conform to

three progressive normal forms, and a higher level of

normalization

cannot be achieved until the previous levels have been

achieved (there

are actually five normal forms, but the last two are

mainly academic and

will not be discussed). First Normal FormThe First Normal

Form (or 1NF) involves removal of redundant data

from horizontal rows. We want to ensure that there is no

duplication of

data in a given row, and that every column stores the

least amount of

information possible (making the field atomic).Second

Normal FormWhere the First Normal Form deals with

redundancy of data across a

horizontal row, Second Normal Form (or 2NF) deals with

redundancy of

data in vertical columns. As stated earlier, the normal

forms are

progressive, so to achieve Second Normal Form, your

tables must already

be in First Normal Form.Third Normal Form

I have a confession to make; I do not often use Third

Normal Form. In

Third Normal Form we are looking for data in our tables

that is not

fully dependant on the primary key, but dependant on

another value in

the table

1. What is SQL injection? How we can prevent it?

Cross-site scripting (XSS) is a type of computer security

vulnerability typically found in web applications which

allow code injection by malicious web users into the web

pages viewed by other users. Examples of such code

include HTML code and client-side scripts. SQL injection is

a code injection technique that exploits a security

vulnerability occurring in the database layer of an

application. The vulnerability is present when user input

is either incorrectly filtered for string literal escape

characters embedded in SQL statements or user input is

not strongly typed and thereby unexpectedly executed

1. Default time of session? How to destroy session manually?

1. What are difference between require and include?

It’s how they handle failures. If the file is not found by require(), it will cause a fatal error and halt the execution of the script. If the file is not found by include(), a warning will be issued, but execution will continue.

1. What are different tables(Engine) present in MySql, which one is default?

Answer:

Following tables (Storage Engine) we can create

1. MyISAM(The default storage engine IN MYSQL Each

MyISAM table is stored on disk in three files. The files

have names that begin with the table name and have an

extension to indicate the file type. An .frm file stores the

table format. The data file has an .MYD (MYData)

extension. The index file has an .MYI (MYIndex)

extension. )

2. InnoDB(InnoDB is a transaction-safe (ACID

compliant) storage engine for MySQL that has commit,

rollback, and crash-recovery capabilities to protect user

data.)

3. Merge

4. Heap (MEMORY)(The MEMORY storage engine

creates tables with contents that are stored in memory.

Formerly, these were known as HEAP tables. MEMORY is

the preferred term, although HEAP remains supported for

backward compatibility. )

5. BDB (BerkeleyDB)(Sleepycat Software has provided

MySQL with the Berkeley DB transactional storage

engine. This storage engine typically is called BDB for

short. BDB tables may have a greater chance of surviving

crashes and are also capable of COMMIT and ROLLBACK

operations on transactions)

6. EXAMPLE

7. FEDERATED (It is a storage engine that accesses data

in tables of remote databases rather than in local tables.

)

8. ARCHIVE (The ARCHIVE storage engine is used for

storing large amounts of data without indexes in a very

small footprint. )

9. CSV (The CSV storage engine stores data in text files

using comma-separated values format.)

10. BLACKHOLE (The BLACKHOLE storage engine acts

as a "black hole" that accepts data but throws it away

and does not store it. Retrievals always return an empty result)

1. How can we send mail using Javascript??

1. What are advantages of stored procedures, triggers and indexes?

1. Inheritance..What type of inheritance supported in PHP?

1. What is garbage collection? Default time? Refresh time?

Garbage Collection is an automated part of PHP , If the

Garbage Collection process runs, it then analyzes any

files in the /tmp for any session files that have not been

accessed in a certain amount of time and physically

deletes them. Garbage Collection process only runs in the

default session save directory, which is /tmp. If you opt

to save your sessions in a different directory, the Garbage

Collection process will ignore it. the Garbage Collection

process does not differentiate between which sessions

belong to whom when run. This is especially important

note on shared web servers. If the process is run, it

deletes ALL files that have not been accessed in the

directory. There are 3 PHP.ini variables, which deal with

the garbage collector: PHP ini value name default

session.gc\_maxlifetime 1440 seconds or 24 minutes

session.gc\_probability 1 session.gc\_divisor 100

1. Difference between char and varchar data type??

Set char to occupy n bytes and it will take n bytes even if

u r

storing a value of n-m bytes

Set varchar to occupy n bytes and it will take only the

required space

and will not use the n bytes

eg. name char(15) will waste 10 bytes if we store

'romharshan', if each char

takes a byte

eg. name varchar(15) will just use 5 bytes if we store

'romharshan', if each

char takes a byte. rest 10 bytes will be free.

1. What is default session time and path??

1. What are magic methods in php?

Magic methods are the members functions that is

available to all the instance of class Magic methods

always starts with "\_\_". Eg. \_\_construct All magic

methods needs to be declared as public To use magic

method they should be defined within the class or

program scope Various Magic Methods used in PHP 5 are:

\_\_construct() \_\_destruct() \_\_set() \_\_get() \_\_call()

\_\_toString() \_\_sleep() \_\_wakeup() \_\_isset() \_\_unset()

\_\_autoload() \_\_clone()

1. What is CURL?

CURL means Client URL Library

curl is a command line tool for transferring files with URL

syntax, supporting FTP, FTPS, HTTP, HTTPS, SCP, SFTP,

TFTP, TELNET, DICT, LDAP, LDAPS and FILE. curl

supports SSL certificates, HTTP POST, HTTP PUT, FTP

uploading, HTTP form based upload, proxies, cookies,

user+password authentication (Basic, Digest, NTLM,

Negotiate, kerberosâ€¦), file transfer resume, proxy

tunneling and a busload of other useful tricks.

CURL allows you to connect and communicate to many

different types of servers with many different types of

protocols. libcurl currently supports the http, https, ftp,

gopher, telnet, dict, file, and ldap protocols. libcurl also

supports HTTPS certificates, HTTP POST, HTTP PUT, FTP

uploading (this can also be done with PHPâ€TMs ftp

extension), HTTP form based upload, proxies, cookies,

and user+password authentication.

1. Difference between == and === ??

1. Difference between split & explode, implode??
2. How can enable error reporting in Php?

1. What are traits?

1. Constructor and destructor

1. What are getters and setters.. why are they important??
2. Do you use composer?? benefits??

https://www.codementor.io/jadjoubran/php-tutorial-getting-started-with-composer-8sbn6fb6t

1. design Patterns and unit testing

56. What is limit of GET method?

Answer: 2 Kb

57. What are the different types of errors in PHP?

Three are three types of errors:1. Notices: These areShwetank Kumar Gupta-shwetankkg@gmail.com 2011

trivial,

non-critical errors that PHP encounters while executing a

script â€“ for

example, accessing a variable that has not yet been

defined. By default,

such errors are not displayed to the user at all â€“

although, as you will

see, you can change this default behavior.2. Warnings:

These are more serious errors â€“ for example,

attempting

to include() a file which does not exist. By default, these

errors are

displayed to the user, but they do not result in script

termination.3. Fatal errors: These are critical errors â€“

for example,

instantiating an object of a non-existent class, or calling a

non-existent function. These errors cause the immediate

termination of

the script, and PHP's default behavior is to display them

to the user

when they take place.

58. What is the maximum length of a table name,

database name, and

fieldname in MySQL?

59. Difference between REST / SOAP API and types of authentication in REST (security / auth token)

## **What Is a REST API?**

REST is basically an architectural style of the web services that work as a channel of communication between different computers or systems on the internet. The term REST API is something else.

Those application programming interfaces that are backed by the architectural style of REST architectural system are called REST APIs. REST API compliant web services, database systems, and computer systems permit requesting systems to get robust access and redefine representations of web based resources by deploying a predefined set of stateless protocols and standard operations.

By these protocols and operations and redeploying the manageable and updatable components without causing the effect on the system, REST API systems deliver fast performance, reliability, and more progression.

## **What Is a SOAP API?**

SOAP is a standard communication protocol system that permits processes using different operating systems like Linux and Windows to communicate via HTTP and its XML. SOAP based APIs are designed to create, recover, update and delete records like accounts, passwords, leads, and custom objects.

These offers over twenty different kinds of calls that make it easy for the API developers to maintain their accounts, perform accurate searches and much more. These can then be used with all those languages that support web services.

SOAP APIs take the advantages of making web based protocols such as HTTP and its XML that are already operating the all operating systems that are why its developers can easily manipulate web services and get responses without caring about language and platforms at all.

### **Differences:**

* REST API has no has no official standard at all because it is an architectural style. SOAP API, on the other hand, has an official standard because it is a protocol.
* REST APIs uses multiple standards like HTTP, JSON, URL, and XML while SOAP APIs is largely based on HTTP and XML.
* As REST API deploys multiple standards, so it takes fewer resources and bandwidth as compared to SOAP that uses XML for the creation of Payload and results in the large sized file.
* The ways both APIs exposes the business logics are also different. REST API takes advantage of URL exposure like @path("/WeatherService") while SOAP API use of services interfaces like @WebService.
* SOAP API defines too many standards, and its implementer implements the things in a standard way only. In the case of miscommunication from service, the result will be the error. REST API, on the other hand, don't make emphasis on too many standards and results in corrupt API in the end.
* REST API uses Web Application Description Language, and SOAP API used Web Services Description language for describing the functionalities being offered by web services.
* REST APIs are more convenient with JavaScript and can be implemented easily as well. SOAP APIs are also convenient with JavaScript but don't support for greater implementation.

### Web services overview

A Web service, in very broad terms, is a method of communication between two applications or electronic devices over the World Wide Web (WWW). Web services are of two kinds: Simple Object Access Protocol ([SOAP](https://searchmicroservices.techtarget.com/definition/SOAP-Simple-Object-Access-Protocol)) and Representational State Transfer ([REST](https://searchmicroservices.techtarget.com/definition/REST-representational-state-transfer)).

**SOAP** defines a standard communication protocol (set of rules) specification for [XML](https://searchmicroservices.techtarget.com/definition/XML-Extensible-Markup-Language)-based message exchange. SOAP uses different transport protocols, such as [HTTP](https://searchwindevelopment.techtarget.com/definition/HTTP) and [SMTP](https://searchexchange.techtarget.com/definition/SMTP). The standard protocol HTTP makes it easier for SOAP model to tunnel across [firewalls](https://searchsecurity.techtarget.com/definition/firewall) and [proxies](https://whatis.techtarget.com/definition/proxy-server) without any modifications to the SOAP protocol. SOAP can sometimes be slower than middleware technologies like [CORBA](https://searchsqlserver.techtarget.com/definition/CORBA) or [ICE](https://searchmicroservices.techtarget.com/definition/ice) due to its verbose XML format.

**REST** describes a set of architectural principles by which data can be transmitted over a standardized interface (such as HTTP). REST does not contain an additional messaging layer and focuses on design rules for creating stateless services. A client can access the resource using the unique [URI](https://searchmicroservices.techtarget.com/definition/URI-Uniform-Resource-Identifier) and a representation of the resource is returned. With each new resource representation, the client is said to transfer state. While accessing RESTful resources with HTTP protocol, the URL of the resource serves as the resource identifier and GET, PUT, DELETE, POST and HEAD are the standard HTTP operations to be performed on that resource.

### REST vs. SOAP

There are significant differences between SOAP and RESTful web services. The bullets below break down the features of each web service based on personal experience.

**REST**

* RESTful web services are stateless. You can test this condition by restarting the server and checking if interactions survive.
* For most servers, RESTful web services provide a good caching infrastructure over an HTTP GET method. This can improve the performance if the information the service returns is not altered frequently and is not dynamic.
* Service producers and consumers must understand the context and content being passed along as there is no standard set of rules to describe the REST web services interface.
* REST is useful for restricted-profile devices, [such as mobile](https://searchmicroservices.techtarget.com/answer/REST-or-SOAP-Which-offers-the-most-benefits-for-mobile-applications), for which the overhead of additional parameters are less (e.g., headers).
* REST services are easy to integrate with existing websites and are exposed with XML so the HTML pages can consume the same with ease. There is little need to refactor the existing site architecture. As such, developers are more productive because they don't need to rewrite everything from scratch; instead, they just need to add on the existing functionality.
* A REST-based implementation is simple compared to SOAP.

**SOAP**

* The Web Services Description Language ([WSDL](https://searchmicroservices.techtarget.com/tutorial/WSDL-Tutorial)) describes a common set of rules to define the messages, bindings, operations and location of the service. WSDL is akin to a contract to define the interface that the service offers.
* SOAP requires less plumbing code than REST services design (e.g., transactions, security, coordination, addressing and trust). Most real-world applications are not simple and support complex operations, which require conversational state and contextual information to be maintained. With the [SOAP approach](https://searchmicroservices.techtarget.com/tutorial/Simple-Object-Access-Protocol-SOAP-Tutorial), developers don't need to write plumbing code into the application layer.
* SOAP web services, such as JAX-WS, are useful for asynchronous processing and invocation.
* SOAP supports several protocols and technologies, including WSDL, XSDs and WS-Addressing.

Consuming a web service via a database stored procedure allows users to straight away update a database with information from different sources. Users can also schedule a job at regular intervals to get data updated periodically in the database.

60. Diff PUT & POST

The fundamental difference between the POST and PUT requests is reflected in the different meaning of the Request-URI. The URI in a POST request identifies the resource that will handle the enclosed entity. That resource might be a data-accepting process, a gateway to some other protocol, or a separate entity that accepts annotations. In contrast, the URI in a PUT request identifies the entity enclosed with the request – the user agent knows what URI is intended and the server MUST NOT attempt to apply the request to some other resource.

Interview scope for UI & Angular

HTML5:-

Features, New Semantic Elements, localstorage and sessionstorage, What are web sockets?

CSS3:-

box model, Features, What is Pseudo-elements, frameworks, classes, plugins,

DB:-

About, SQL injection, normalisation, joins, oriented version of MySQL - MySQLi

------------------------------------------

Javascript:-

What is JavaScript?

JavaScript is a client-side as well as server side scripting language that can be inserted into HTML pages and is understood by web browsers. JavaScript is also an Object based Programming language

Event binding, bind method, ajax, synchronous, asynchronous, scope variable

What is the difference between undefined and not defined in JavaScript?

What is a “closure” in JavaScript? Provide an example

A closure is a function defined inside another function (called the parent function), and has access to variables that are declared and defined in the parent function scope.

What is the instanceof operator in JavaScript?

Enumerate the differences between Java and JavaScript?

What are JavaScript Data Types?

Number

String

Boolean

Function

Object

Undefined

What is the use of isNaN function?

What are undeclared and undefined variables?

What is a prompt box?

What are all the looping structures in JavaScript?

For, While, do-while loops

Which keywords are used to handle exceptions?

What is the use of Push method in JavaScript?

How are JavaScript and ECMA Script related?

------------------------------------------

AngularJS:-

Features, ng-template

Angular:-

MEAN, node, express, components, services, mongo, routes

------------------------------------------

What is PHP7? & benefits of PHP7

features of PHP

What types of loops exist in PHP?

What are the data types of PHP?

Integers, Doubles, Booleans, Arrays, Objects, NULL, Strings.

What is the use of Constant Function?

Does PHP support multiple inheritances?

What is the default page in web server?

index(html,php,jsp,asp)