

CS521

Mcqs mostly theory related thy mean idr cs521 mai theory just lectures mai discuss ha slides pay ni ha so mcqs coding related koi v nhi tha sirf theory hi thi or question mai coding thi thori bht.

Cs521 today's papers 1/Aug/2024

Mcqs mix thy Kuch jany pahchany Kuch ajeeb sy thy but ager concept clear ho to thek hy

Short question

- 1) Class bnani thi php Mai
- 2) java script mai file include ka syntax Daina tha
- 3) SQL query thi simple greater than wali
- 4) JavaScript Mai variable access k ways btany thy
- 5) benefits of ajax
- 6) node.js ki usage thi

Long

- 1) Input validation ki types ghi
- 2) php Mai array ly k loop k zariya sum karwana tha
- 3) event listener approach sy message print Karna tha
- 4) digital signature ko define Karna tha

Cs521 final term 1 aug 2024

mostly mcqs from database, error reporting topic, seo topic, session state management, get post


short

1. node.js ki working
2. session destory and session end k code
3. ajax k benefits
4. class create in php
5. sql query for showing data
6. jquery ko webserver mai inclue krny k 2 methods

long

1. key difference between file process of php and node.js
2. validate the user input "inputuser" show msg "please insert the input" using alret if this input is empty. is type k question tha
3. array give thi sum show krwna tha using php code
4. expirytime of session of code likhna tha expirytime oneday tha

Mcqs are easy and from handout

 short question

sql query

D/b valid XML and well formed xml

. Animate

Class in php

Seo and it's technique

Jquery

 long

All question from coding

Class code

Event listener approach

Create class button

Setting cookie with expiry time

Assalamualaikum wrwb today cs521

All paper coding related to php mean

Aik ta two numbers add krne

Dsra if statement Wala

R get wale bht te get put post wale Jo hyn

R validation wale mcqs bht te question b

Xml wale mcqs questions

Seo technique Wala question

Array wale te

.animate ta

Istrahn k questions te

Cs521 Today 10:00 am

Overall paper was so easy

Conceptual Mcqs from ppt but easy

S/Q

SEO techniques

Ajax Properties

Validation form names

Sql query

\$_FILE used for

L/Q

Php code tha

Java event handler

Concept of Transactions

Xml code ko Jason mai change krna tha

Cs521 timing 4:30

Mcqs conceptual easy from ppt

Short Q:

1. Update SQL query
2. Php method fo 1.removing session variable
 2. DestroySession
3. Using \$_File in PHP
4. benefits of ajax
5. What are socket and how differ from traditional html communication from web sites
6. Differ type of form validating

Long Q

1. What are the benefits of use transaction and give example when using transaction is useful
2. Syntax of define array in PHP and write different type of array
3. Write difference of file handing process in PHP and node. Js
4. Write a PHP code of adding two variable and display the result of sum

Important topics:

PHP

Loops

Function (Most important) es mai sa bht sy MCQ's ayn thyn

My SQL

Week # 12

Actors

Security Principles

Week # 14

JavaScript

Week # 16

CS-521

TODAYS PAPER

php mcqs main aur shorts questions main bohat details k sath aayi although easy questions thay achi tarhan php ko daikh lain

whats is ajax

web-sockets aur traditional http applications kay use main difference ka bhi question tha

Saray theory say thay zaida portion PHP kay area say bht that but easy thay aram k sath php walay topics agr kiye hon to easily cover hojata hai

Aur Code main Sirf 2 long thay

Aik main PHP code likhna tha 2 number ko add Karna tha aur unka result display Karna tha

Dusray main JavaScript on mouse click event ki help say koi statement display karwani thi proper mind main nahi hai ye question

IMP mcqs screen shots

Tech trailblazer



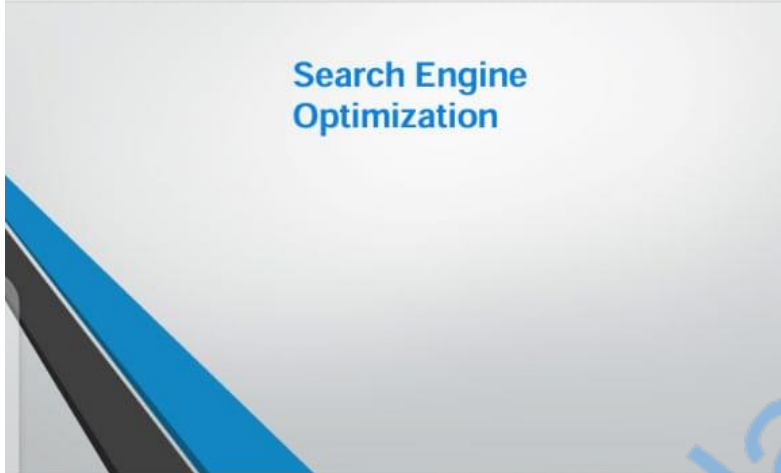
Node Package Manager (NPM)

- Package manager for JavaScript
- Used for installing JavaScript libraries and frameworks
- Can handle dependencies
- Usage

```
npm install  
npm install packagename  
npm install packagename@version  
npm update  
npm list
```

Node.js – Example



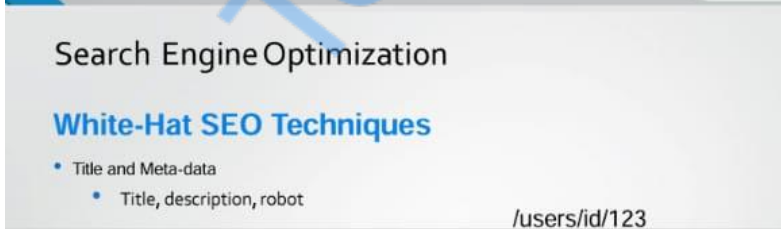


Search Engine Optimization

Introduction

- Search Engine Optimization(SEO) is a way to increase the rank of a website
 - White hat SEO
 - Black hat SEO

370



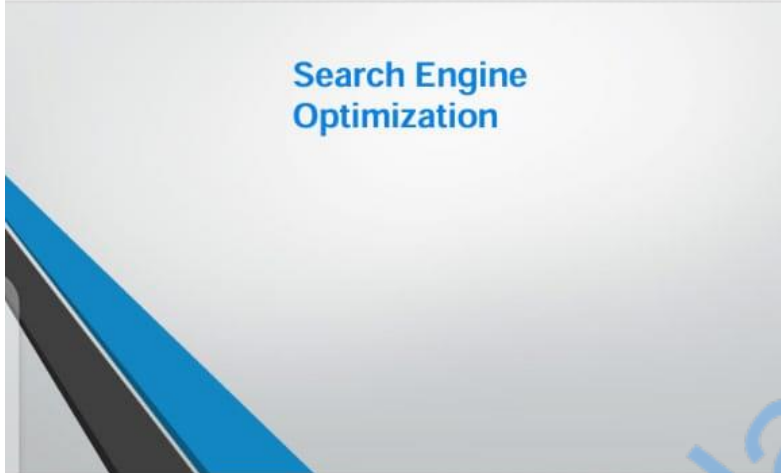
Search Engine Optimization

White-Hat SEO Techniques

- Title and Meta-data
 - Title, description, robot

/users/id/123



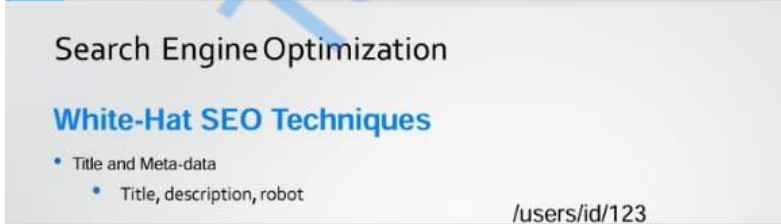


Search Engine Optimization

Introduction

- Search Engine Optimization(SEO) is a way to increase the rank of a website
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370





JavaScript Frame work

JavaScript Frame work

JavaScript framework provides structure for developing JavaScript applications

Popular frameworks

- Angular
- Ember
- Vue
- React
- Express

325

Slides by Conroy & Hour, "Fundamentals of Web Development" - 2nd Ed. Pearson Ed. (2018)

JavaScript Front-End Frameworks

- Ember forces developers to adopt a





Web Analytics

Introduction

- Web analytics provide us insights about website usage
 - Bandwidth usage
 - Referrers
 - Popular domains/page
 - Search terms used for landing
 - User behavior
 - Demographics



Web Analytics

Web Metrics

- Page Views
- Unique page views
- Average visit duration





Function Syntax

- Function starts with the keyword **function**
- Can take zero or more parameters
- May or may not return a value

```
function square($num) {  
    return $num*$num;  
}
```

```
$sq = square(5);
```

Function Syntax – Return Type Declaration

- A Return Type Declaration explicitly defines a function's return type by adding a colon and the return type after the parameter list when defining a function

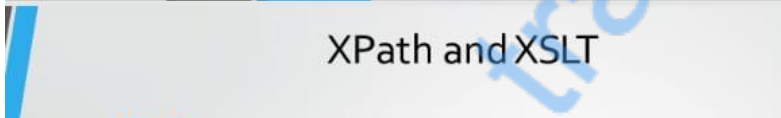
```
function mustReturnString() : string {  
    return "hello";  
}
```





Web Systems and Technologies

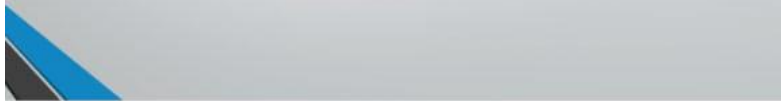
XPath and XSLT



XPath and XSLT

XPath

- XML Path Language
- Used for accessing elements and attributes in an XML document
- Widely used in JavaScript for accessing certain elements/attributes of HTML documents





Valid To: July 23, 2014
Issuer: funwebdev.com, funwebdev.com
Key Size: 1024 bit
Serial Number: 9f6da4acd62500a0

```
-----BEGIN CERTIFICATE-----
MIIDBTCCAeGgAwIBAgIQDzZKxmqcVWBC859m43D3gb66jaahYU5CA+Fn2Tf578oYeV
m0wWXcmI4bWwpp3lbbP712+XcvYIMda4nLSb5SPyiv4vz9eL
Ya/c0Z1A7v6bk1awZS89E=
-----END CERTIFICATE-----
```

Slides by Connolly & Hoar, "Fundamentals of Web Development" - 2nd Ed. Pearson (2018)

Hypertext Transfer Protocol Secure (HTTPS)

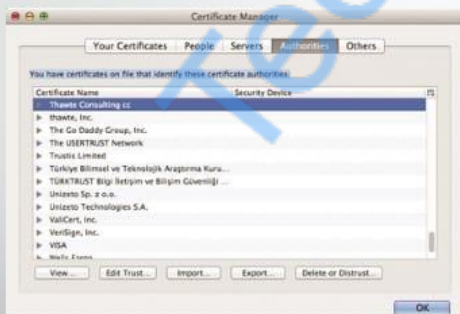
Certificates and Authorities

- **Certificate Authority (CA)** allows users to place their trust in the certificate since a trusted, independent third party signs it.
- The CA's primary role is to validate that the requestor of the certificate is who they claim to be, and issue and sign the certificate containing the public keys so that anyone seeing them can trust they are genuine.
- In browsers, there are many dozens of CAs trusted by default
- You can also self-sign certificates (generates warnings)

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Hypertext Transfer Protocol Secure (HTTPS)

Certificates and Authorities





Checking session existence

```
<?php
include_once("ShoppingCart.class.php");
session_start();
// always check for existence of
//session object before accessing it
if ( !isset($_SESSION["Cart"]) ) {
    // session variables can be strings,
    //arrays, or objects, but smaller is better
    $_SESSION["Cart"] = new ShoppingCart();
}
$cart = $_SESSION["Cart"];
?>
```

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Terminating a session

- Removing session variables
 - Session_unset()
- Destroying the session
 - › session_destroy();

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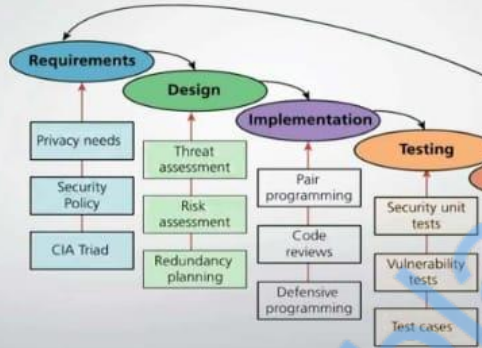
Security Principles





Secure by Design

Secure by Design



Authentication

Tech trailblazer

Authentication Factors

Authentication Factors





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Cryptography

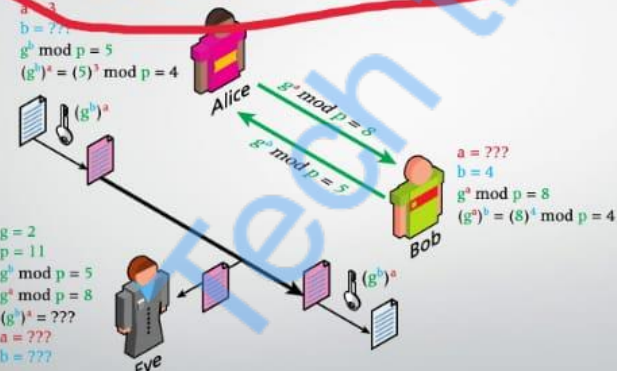
Public Key Cryptography

- Public key cryptography (or asymmetric cryptography) solves the problem of the secret key by using two distinct keys: a public one, widely distributed and another one, kept private.

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Cryptography

Public Key Cryptography – Diffie Hellman



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Cryptography





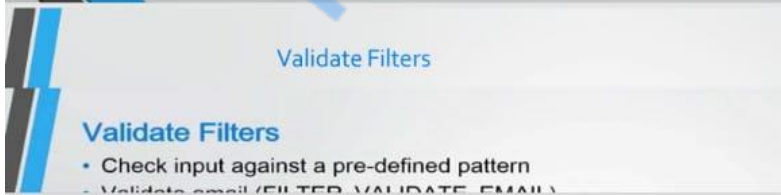
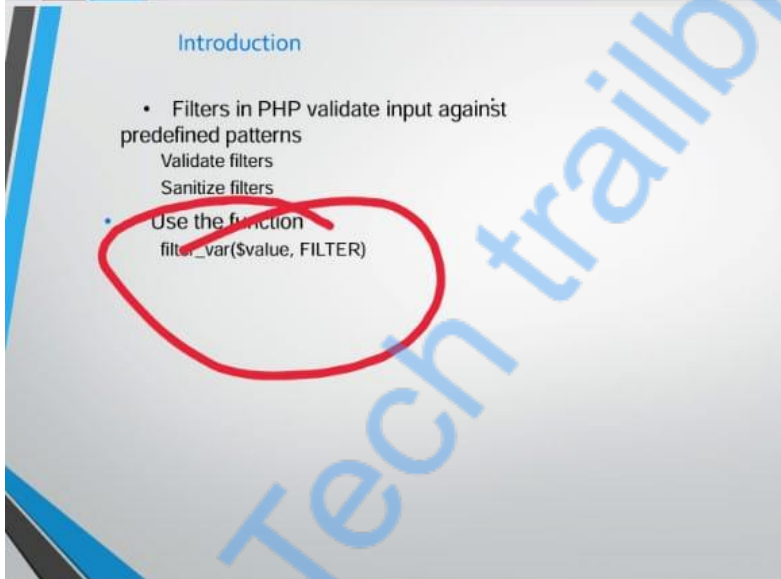
Web Systems and Technologies

- 109 State Management on Server Side
- 110 State Management Using Query String
- 111 Cookies
- 112 Cookies - Example
- 113 Serialization
- 114 Session State
- 115 Security Principles
- 116 Security by Design
- 117 Authentication

The Problem of state Management

Desktop vs Web Application







Regular Expressions

182

Introduction

- A regular expression is a set of special characters that define a pattern.
- Regular expressions are a concise way to eliminate the conditional logic that would be necessary to ensure that input data follows a specific format.
- PHP, JavaScript, Java, the .NET environment, and most other modern languages support regular expressions (each slightly different).

Regular Expression Syntax





The display_errors Setting

- The display_errors setting specifies whether error messages should or should not be displayed in the browser
- `ini_set('display_errors','0');`
- It can also be set within the php.ini file:
- `display_errors = On`

The log_errors Setting

- The log_errors setting specifies whether error messages should or should not be sent to the server error
- `ini_set('log_errors','1');`
- It can also be set within the php.ini file:
- `log_errors = On`





SQL, Database, PHP

- 1 SQL - Select, Insert, Update, Delete
- 2 Introduction to MySQL
- 3 phpMyAdmin
- 4 Accessing MySQL in PHP
- 5 Fetching Data
- 6 Performing Transactions
- 7 Example: Database Creation
- 8 Example: Database Insertion
- 9 Example: Database Search

SQL – Select, Insert, and Update

ELECT Statement

SQL keyword that indicates the type of query (in this case a query to retrieve data)

SQL keyword for specifying the tables

Fields to retrieve

Table to retrieve from

Wildcard to select all fields

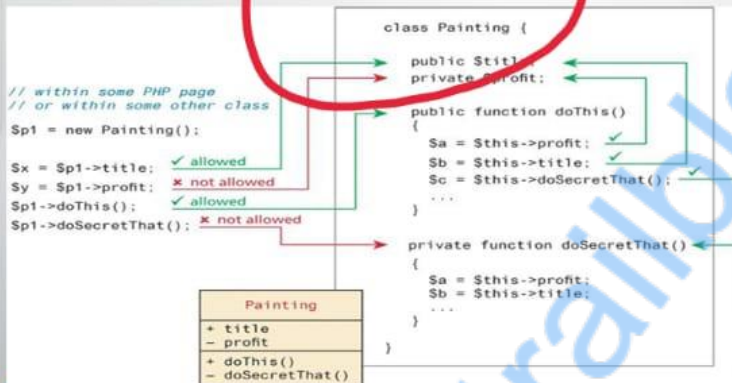
Note: While the wildcard is convenient, especially when testing, for production code it is usually avoided; instead of selecting every field, you should select just the fields you need.





Classes and Objects PHP Visibility

Classes and Objects in PHP Visibility



Web Systems and Technologies

TOPIC 89

Classes and Objects PHP Static Members Constants





Defining Classes

```
class Artist {  
    public $firstName;  
    public $lastName;  
    public $birthDate;  
    public $birthCity;  
    public $deathDate;  
}
```

Instantiating Objects

- Use the new keyword

```
$picasso = new Artist();  
$dali = new Artist();
```





Superglobal Arrays

- **\$_ENV**
 - Array of server environment data (mostly OS related and paths)
- **\$_SERVER**
 - Array containing information about the request and the server

Superglobal Arrays

- **\$_GET**
 - Array of query string data passed to the server via the URL
- **\$_POST**
 - Array of query string data passed to the server via the HTTP header
- **\$_REQUEST**
 - Array containing the contents of \$_GET, \$_POST, and \$_COOKIES
- **\$_FILES**
 - Array of file items uploaded to the server

