

Software Tools 4

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1. Write a PHP program to validate email using a user-defined function.

```
<!DOCTYPE html>
<html>
<head>
    <title>Validate Email</title>
</head>
<body>
    <h1>Enter Email</h1>
    <form action="validate.php" method="get">
        <input type="text" name="email">
        <input type="submit" name="submit">
    </form>
</body>
</html>
```

```
<?php
function valid_email($email) {
    if(is_array($email) || is_numeric($email) || is_bool($email) ||
    is_float($email) || is_file($email) || is_dir($email) || is_int($email))
        return false;

    $email=trim(strtolower($email));
    $pattern =
    '/^[_a-z0-9-]+(\.[_a-z0-9-]+)*@[a-z0-9-]+(\.[a-z0-9-]+)*(\.[a-z]{2,3})$/';
    return (preg_match($pattern, $email) === 1);
}

$email = $_GET["email"];
if(valid_email($email)) {
    echo "Email is invalid";
} else {
    echo "Email is valid";
}
?>
```

Email is invalid

Enter Email

invalid

Enter Email

Email is valid

valid

2. Write a program to create a Chess Board in PHP.

```
<!DOCTYPE html>
<html>

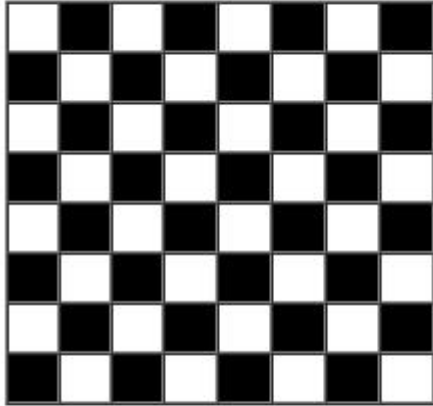
<head>
  <title></title>
  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
</head>

<body>
  <h3>Chess Board using Nested For Loop</h3>
  <table width="270px" cellspacing="0px" cellpadding="0px" border="1px">
    <?php
    for ($row = 1; $row <= 8; $row++) {
      echo "<tr>";
      for ($col = 1; $col <= 8; $col++) {
        $total = $row + $col;
        if ($total % 2 == 0) {
          echo "<td height=30px width=30px bgcolor=#FFFFFF></td>";
        } else {
          echo "<td height=30px width=30px bgcolor=#000000></td>";
        }
      }
      echo "</tr>";
    }
  ?>
```

```
</table>
</body>

</html>
```

Chess Board using Nested For Loop



3. Write a program to demonstrate a filter_var function in PHP.

```
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Filter Functions</title>
  </head>
  <body>
    <h1>Enter Email</h1>
    <form action="validate.php" method="get">
      <input type="text" name="email" />
      <input type="submit" name="submit" />
    </form>
  </body>
</html>
```

```
<?php

$email = $_GET["email"];
echo "You entered: ".$email."<br>";

$email = filter_var($email, FILTER_SANITIZE_EMAIL);
```

```

echo "Sanitized email: ".$email."<br>";

// Validate e-mail
if (filter_var($email, FILTER_VALIDATE_EMAIL)) {
    echo $email." is a valid email address<br>";
} else {
    echo $email." is an invalid email address<br>";
}

?>

```

Enter Email

email entered with Quotation marks

```

You entered: ''''''sahilbondre@gmail.com end
Sanitized email: sahilbondre@gmail.comend
sahilbondre@gmail.com is a valid email address

```

4. Write a program to implement a basic search engine.

```

<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Filter Functions</title>
  </head>
  <body>
    <h1>Enter a Programming Language</h1>
    <form action="search.php" method="get">
      <input type="text" name="lang" />
      <input type="submit" name="submit" />
    </form>
  </body>
</html>

```

```

<?php
$lang = $_GET["lang"];
$info = "";

```

```
switch ($lang) {
    case 'php':
        $info = 'PHP is a general-purpose scripting language that is
especially suited to<br>
        web development. It was originally created by Danish-Canadian
programmer Rasmus <br>
        Lerdorf in 1994; the PHP reference implementation is now produced by
The PHP Group';
        break;

    case 'java':
        $info = 'Java is a class-based, object-oriented programming language
that is designed<br>
        to have as few implementation dependencies as possible. It is a
general-purpose <br>
        programming language intended to let application developers write
once, run anywhere<br>
        (WORA),[17] meaning that compiled Java code can run on all platforms
that support <br>
        Java without the need for recompilation.[18] Java applications are
typically compiled <br>
        to bytecode that can run on any Java virtual machine (JVM)
regardless of the underlying <br>
        computer architecture.';
        break;
    case 'c++':
        $info = 'C++ is a general-purpose programming language created by
Bjarne Stroustrup as an <br>
        extension of the C programming language, or "C with Classes". The
language has expanded <br>
        significantly over time, and modern C++ now has object-oriented,
generic, and functional features<br>
        in addition to facilities for low-level memory manipulation.';
        break;
    default:
        $info = 'Error: Language not found!';
        break;
}

echo "<h1>" . $lang . "</h1>";
echo "<p>" . $info . "</p>";

?>
```

Enter a Programming Language

java

Java is a class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible. It is a general-purpose programming language intended to let application developers write once, run anywhere (WORA),[17] meaning that compiled Java code can run on all platforms that support Java without the need for recompilation.[18] Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer architecture.

5. Create a student Registration form using HTML Form elements and display all student information on another page using PHP. Validate all the fields.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta
      name="viewport"
      content="width=device-width,
        initial-scale=1.0"
    />
    <meta http-equiv="X-UA-Compatible" content="ie=edge" />
    <title>Student Information</title>
  </head>
  <body>
    <form action="validate.php" method="POST">
      <label for="Name">Name: </label>
      <input type="text" name="Name" /><br /><br />
      <label for="Age">Age: </label>
      <input type="number" name="Age" /><br /><br />
      <label for="Email">Email: </label>
      <input type="email" name="Email" /><br /><br />
    </form>
  </body>
</html>
```

```
<label for="Phone">Phone: </label>
<input type="number" name="Phone" /><br /><br />
<label for="Department">Department: </label>
<input type="text" name="Department" /><br /><br />
<input type="submit" name="submit" value="Submit" />
</form>
</body>
</html>
```

```
<?php
$keywords = array("Computer Engineering", "Electrical
Engineering", "Electronic Engineering", "Applied Mathematics");
$flag = false;
$name = $_POST['Name'];
$age = $_POST['Age'];
$email = $_POST['Email'];
$phone = $_POST['Phone'];
$dept = $_POST['Department'];
if (
    empty($name) || empty($age) || empty($email) || empty($phone)
    || empty($dept)
) {
    echo "Each field is required to be filled.<br>";
    $flag = true;
}
if ($age < 18) {
    echo "Age must be 18 or more to register for the
college.<br>";
    $flag = true;
}
if (!filter_var($email, FILTER_VALIDATE_EMAIL)) {
    echo $email . " is an invalid email address.<br>";
    $flag = true;
}
if (strlen((string)$phone) < 10 || strlen((string)$phone) > 10) {
    echo "Phone must contain only 10 digits.<br>";
    $flag = true;
}
foreach ($keywords as $index) {
    if ($dept != $index) {
        $flag = true;
    } else {
        $flag = false;
        break;
    }
}
```

```

}
if ($flag) {
    echo " We don't have this department in our college.<br>";
}
if (!$flag) {
    echo "<b>Name:</b> " . $name . "<br>";
    echo "<b>Age:</b> " . $age . "<br>";
    echo "<b>Email:</b> " . $email . "<br>";
    echo "<b>Phone:</b> " . $phone . "<br>";
    echo "<b>Department:</b> " . $dept . "<br>";
}
?>

```

Invalid Data:

Name:

Age:

Email:

Phone:

Department:

Age must be 18 or more to register for the college.
Phone must contain only 10 digits.
We don't have this department in our college.

Valid Data

Name:

Age:

Email:

Phone:

Department:

Name: Sahil Bondre
Age: 18
Email: sahilbondre@gmail.com
Phone: 6355344037
Department: Computer Engineering

6. Write a PHP script to make a web application take a name as input and on submit it shows a hello <name> page where <name> is taken from the request. And provide a logout button on clicking this button it should show a logout page with a thank you <name> message.

index.html:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Validate Email</title>
  </head>
  <body>
    <h1>Enter Name</h1>
    <form action="welcome.php" method="get">
      <input type="text" name="name" />
      <input type="submit" name="submit" />
    </form>
  </body>
</html>
```

welcome.php:

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
  <title>ST-3 | Q6</title>
</head>

<body>
  <h2>
    <?php session_start();
    $name = $_GET["name"];
    $_SESSION["name"] = $name;
    echo "Welcome ".$name;
    ?>
  </h2>
  <form action="logout.php" method="get">
    <input type="submit" name="logout" value="Logout">
  </form>
```

```
</body>
```

```
</html>
```

logout.php:

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
  <title>ST-3 | Q6</title>
</head>

<body>
  <h2>
    You have been logged off.
  </h2>
  Thankyou,
  <?php
    session_start();
    echo " ".$_SESSION["name"];
    session_unset();
  ?>
</body>
```

Login Screen:

Enter Name

Welcome Screen:

Welcome sahil

Logout screen:

You have been logged off.

Thankyou, sahil!