**10. Write a PHP program to sort the student records which are stored in the database using selection sort.**

Program:

<!DOCTYPE html>

<html>

<head>

<title>Selection Sort On The Student Data</title>

</head>

<style>

table{

width: 600px;

height:auto;

margin-left: auto;

margin-right: auto;

border-collapse: collapse;

border:solid 2px black;

margin-top: 70px;

}

td,th{

border:solid 1px black;

}

.sorting{

margin-top: 10px;

margin-left: auto;

margin-right: auto;

height: 70px;

width: 300px;

text-align: center;

border: 1px solid black;

padding-top: 20px;

}

#btn1,#btn2{

margin-top: 10px;

}

</style>

<body>

<h2>Student Details :</h2>

<form action="" method="post">

<div class="sorting">

<div> Sort By :

<select name="field">

<option value="" disabled selected>Choose Field</option>

<option value="name">Name</option>

<option value="usn">USN</option>

<option value="year">Year</option>

<option value="marks">Marks</option>

<option value="coll">College</option>

</select>

</div>

<div>

<input type="submit" id="btn1" name="submit" value="Submit">

<input type="reset" id="btn2" name="reset" value="Reset">

</div>

</div>

</form>

<?php

function selection\_sort($data,$keys)

{

for($i=0; $i<count($data)-1; $i++)

{

$min = $i;

for($j=$i+1; $j<count($data); $j++)

{

if ($data[$j]<$data[$min])

{

$min = $j;

}

}

$data = swap\_positions($data, $i, $min);

$keys = swap\_positions($keys, $i, $min);

}

return $keys;

}

function swap\_positions($data1, $left, $right)

{

$temp = $data1[$right];

$data1[$right] = $data1[$left];

$data1[$left] = $temp;

return $data1;

}

include 'sql.php';

$str="select \* from STUDENT";

$res=mysqli\_query($sql,$str);

$field="none";

$myarr=[];

$original=[];

$i=1;

while($arr=mysqli\_fetch\_assoc($res))

{

$myarr[]=$arr;

}

if(isset($\_POST['submit']) && isset($\_POST['field']))

{

$field=$\_POST['field'];

$original=array\_column($myarr,$field,'id');

$orginalKey=array\_keys($original);

$originalVal=array\_values($original);

$sortedkeys=selection\_sort($originalVal,$orginalKey);

$myarr=[];

foreach ($sortedkeys as $key)

{

$str="select \* from STUDENT WHERE id='$key'";

$res=mysqli\_query($sql,$str);

$myarr[]=mysqli\_fetch\_assoc($res);

}

}

?>

<table>

<tr>

<th colspan="6"> Student Details [Sorted by: <?php echo $field;?>] </th>

</tr>

<tr>

<th>No.</th>

<th>Name</th>

<th>USN</th>

<th>Year</th>

<th>Marks</th>

<th>College</th>

</tr>

<?php foreach ($myarr as $arr): ?>

<tr>

<td><?php echo $i++; ?></td>

<td><?php echo $arr['name']; ?></td>

<td><?php echo $arr['usn']; ?></td>

<td><?php echo $arr['year']; ?></td>

<td><?php echo $arr['marks']; ?></td>

<td><?php echo $arr['coll']; ?></td>

</tr>

<?php endforeach; ?>

</table>

</body>

</html>

**sql.php**

<?php

$sql=mysqli\_connect("localhost","root","","LAB\_10");

?>

**Database:**

CREATE TABLE STUDENT (

id int AUTO\_INCREMENT,

name varchar(100),

usn varchar(50),

year int,

marks int,

coll varchar(200),

PRIMARY KEY (id)

);

INSERT INTO STUDENT VALUES (0,'JOYLINE','4SO20CS073',2023,99,'ST JOSEPH ENGINEERING COLLEGE);

INSERT INTO STUDENT VALUES (0,'RENCITA','4SO20CS073',2023,98,'ST JOSEPH ENGINEERING COLLEGE');

INSERT INTO STUDENT VALUES (0,'WINSLET','4SO20CS122',2020,95,'ST JOSEPH ENGINEERING COLLEGE');

INSERT INTO STUDENT VALUES (0,'MELISHA','4SO20CS088',2027,90,'ST JOSEPH ENGINEERING COLLEGE');

INSERT INTO STUDENT VALUES (0,'ETHAN','4SO20CS050',2030,99,'ST JOSEPH ENGINEERING COLLEGE');

**Output:**

