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Course - MCA

University Roll No - 2101245

Subject - Scripting languages and Statistical Data Analytics  
with R

Ques 1.

Define a method name as "validate()" to check any blank entry any input field. If so then display all unfilled fields in a single alert box.

Soln

```
<html>
<head>
<title> validate </title>
</head>
<body>
<form onsubmit="return validate()">
  Username: <input type="text" id="Uname"> <br> <br>
  Password: <input type="password" id="Pname"> <br> <br>
  <button> Submit </button>
</form>
<script>
  let u=document.getElementById("Uname");
  let P=document.getElementById("Pname");
  function validate()
  {
    if (u.value.trim() == "" || P.value.trim() == "")
    {
      alert("Unfilled fields");
      return false;
    }
    else
      return true;
  }
</script>
```

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Ques.2

Create a Student Registration in PHP and Save and Display the Student Records.

Soln

```
<html>
<head>
<title>general form</title>
</head>
<body bgcolor="aakk">
<form action="<?PHP $_PHP_SELF?>" method="POST">
Name:
<input type="text" name="txtname">
<br><br>
Roll no.:
<input type="text" name="txtroll_no">
<br><br>
Gender:
<input type="text" name="txtgen">
<br><br>
Address:
<textarea name="add" type="text"></textarea>
<br><br>
<input type="Submit" name="insert" value="Save">
<input type="Reset" value="Cancel">
</form>
</body>
</html>
<?PHP
if(isset($_POST['insert']))
{
$con=mysql_connect("localhost","root","");
if($con)
{
```

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```
echo "MySQL Connection OK <br>";
mysql_select_db("studinfo", $con);
$name = stripslashes($_POST['txname']);
$rollno = intval($_POST['txr-no']);
$gender = stripslashes($_POST['txgen']);
$address = stripslashes($_POST['add']);
$insert = "insert into info values ('$name', $rollno, '$gender', '$address')";
if (mysql_query($insert, $con))
{
    echo "Data inserted Successfully <br>";
}
$query = "select * from info";
$result = mysql_query($query, $con);
echo "<table border='1'>
<tr>
<th> Name </th>
<th> Roll No </th>
<th> Gender </th>
<th> Address </th>
<tr>";
while ($row = mysql_fetch_array($result))
{
    echo "<tr>";
    echo "<td>". $row['name']. "</td>";
    echo "<td>". $row['roll no']. "</td>";
    echo "<td>". $row['gen']. "</td>";
    echo "<td>". $row['address']. "</td>";
    echo "</tr>";
}
echo "</table>";
mysql_close($con);
} } ?>
```

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Ques 3

Analyze any CSV dataset using R.

Soln

//code

```
library(dplyr)
library(ggplot2)
setwd("M:/xlang/rp")
getwd()
data <- read.csv("mud1.csv")
view(data)
head(data)
tail(data)
tail(data, 10)
str(data)
summary(data)
data$state.Length
sum(is.na(data))
ggplot(data, aes(y=state, x=murders)) + geom_bar(stat
="identity")
ggplot(data, aes(y=state, x=gunmurders)) + geom_bar(
stat="identity")
ggplot(data, aes(x=murders, y=region)) + geom_boxplot()
data_size <- factor(data)
str(data_size)
summary(data_size)
levels(data_size)
data_table <- table(data_size)
pie(data_table)
ggplot(data, aes(y=murders, fill=region, x=region)) +
geom_bar(width=1, stat="identity") + coord_polar("x",
start=0)
```

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(5)

Name - Vaibhav Rajput  
Student Id - 21711248

Ques. 5  
Soln

Discuss Descriptive and inferential Statistics of above dataset.  
Descriptive Statistics - It is used to summarize the attributes of a sample in such a way that a pattern can be drawn from the group. It enables researchers to present data in a more meaningful way such that easy interpretation can be made.

#### Population

Minimum  $\rightarrow 563626$   
Median  $\rightarrow 6075769$   
Mean  $\rightarrow 4339367$

#### Population density

Mean  $\rightarrow 394.549$   
Median  $\rightarrow 102600$   
Max  $\rightarrow 10298.000$   
Min  $\rightarrow 1.264$

#### Murders

Min  $\rightarrow 7.0$   
Median  $\rightarrow 151.0$   
Mean  $\rightarrow 273.2$   
Max  $\rightarrow 1811.0$

#### Gun Murders

Min  $\rightarrow 2.0$   
Median  $\rightarrow 97.0$   
Mean  $\rightarrow 184.4$   
Max  $\rightarrow 1257.0$

#### Inferential Statistics

Inferential Statistics is a branch of statistics that is used to make inferences about the population by analyzing a sample. When the population data is large it becomes difficult to use it. Inferential Statistics are as follows -

- (i) Hypothesis Testing (z test, ~~f~~ test)
- (ii) Regression Testing (check relationship between dependent variable & independent variable)

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