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Course: MCA   Semester: I

Subject: SL and R Lab   Subject Code: PMC-103

Type of Paper: Regular (End Term Practical)

Ans 3 ⇒

```r
# Dplyr library function
library (dplyr)
setwd ("G:/MCA")
mydata <- read.csv ("most_runs.csv")
mydata

# Descriptive statistics
summary (mydata)
dim (mydata)
str (mydata)
names (mydata)

# select function
mysubdata <- select (mydata, batsman, average)
mysubdata

# filter and arrange function
mysubdata1 <- filter (mydata, average > 50)
mysubdata1
```

```r
mysubdata 2 <- arrange (mydata, desc (average))

mysubdata 3 <- arrange (mydata, desc (strikerate))


# Top and Bottom 5 average Batsman

  head (mysubdata 2)
  tail (mysubdata 2)

# mutate funtion ( to add a coloumn to data set)
  mydata <- mutate (mydata, Performance = runs- balls)


# Different Plot of Dataset

# Histogram
hist (mydata $ average, col = c ( 'blue', 'green', 'red'),
    x lab =" Average", y lab = "Players" , break= 50)


# Scattered Plot
  plot (mydata $ strikerate, col =c ( 'blue', 'green', 'red'),
    xlab ="Players", y lab = " Strike rate")


# Bar Plot
  barplot (mydata $ average, col= c ( 'blue', 'green', 'red'),
    x lab= "Players", y lab=" Average")
```

Box Plot

```
boxplot (mydata $ average, col = c ( 'Blue', 'green', 'red'),
        xlab = "Players", ylab = "Average")
```

Ans 4 →

```
# descriptive statistics
    summary (mydata)
    dim (mydata)
    str (mydata)
    names (mydata)


# Infrential Statistics

# chi-squared test

    model <- chisq.test (mydata)
    model

        # output    p-value = 0.446283 > 0.05
        # Thus 'mydata' is highly corelated and we
        # accept the  NULL  Hypothesis

# correlation Coefficient

    cor (mydata $ Batsman , mydata $ runs)


        # output    0.99324 > 0.8

        # Thus Batsman & runs is strongly correlated to
        # each other
```

Tarun

```
# Anova test
mysubdata 4 <- aov ( mydata $ runs ~ mydata $ average)
    mysubdata 4

    # output Pr(>F) is 0.0013 as this value is less than
    # 0.05 then we reject NULL Hypothesis and
    # accept the alternative Hypothesis.


    # T-Test

    # This gives us the T-score for the dataset
data1 <- t.test ( mydata , mu = 100)
    data 1

    # Here p-value is 0.44 6283 > 0.05
    # So we accept the NULL Hypothesis
```

Ans 1 ⇒   Code :—
```
<!doctype html>
<html>
<head> validate method </head>
<body>
<form  name = " myform"  action = "/action.php"
onsubmit = "return validate()"  method = "post">
Name: <input type="text"  name = "frame" > <br>
Password: <input type = "password"  name="pass"><br>
```

Turn

| Turn

```
Course: <input type = "text" name = "course" ><br>
<input type = "submit" value = "submit">

<script>
function validate()

  let x = document.forms ["myform"] ["Ename"].value;
  let x1 = document.forms ["myform"] ["pass"].value;
  let x2 = document.forms ["myform"] ["course"].value;
  if ( x == " " && x1 == " " && x2 == " ")

    {
      alert (" Name, password, course must be filled ");
    }
  else if ( x == " " && x1 == " ")

    {
      alert (" Name and Password must be fill out ");
    }
  else if ( x == " " && x2 == " ")

    {
      alert (" Name and Course must be fill out ");
    }
  else if ( x1 == " " && x2 == " ")
    {
      alert (" Password, course must be fill out ");
    }
```

Tam

```
else if ( x == " ")
  {
    alert (" Name must be filled out");
  }
else if (x₁ == " ")
  {
    alert (" Password must be filled out");
  }
else if (x₂ == " ")
  {
    alert (" Course must be filled out");
  }
  return false;

}
</script>
</form>
</body>
</html>
```

Ans 2 ⇒

```
<! doctype html>
<html lang="en">
<head>
<title> PHP Registration Form </title>
</head>

<body>
<?php

$nameErr = "";
$emailErr = "";
$genderErr = "";
$websiteErr = "";
$name = "";
$email = "";
$gender = "";
$comment = "";
$website = "";

if ($_SERVER["REQUEST_METHOD"] == "POST")
    {
        if (empty ($_POST["name"]))
            {
                $nameErr = "Name field is required";
            }
        else
            {
                $name = test_input ($_POST["name"]);
```

Tarun

```php
if (! preg_match ("/^[a-z A-Z-']*$/", $name))
  {
    $nameErr = "only letters and white space allowed";
  }
}
if (empty ($_POST["email"]))
    {
      $emailErr = "Email is required";
    }
  else
    {
    $email = test_input ($_POST["email"]);
    if (! filter_var ($email, FILTER_VALIDATE_EMAIL))
       {
         $emailErr = "Invalid email format";
       }}
     if (empty ($_POST["website"]))
        {
          $website = "";
        }
        else {
        $website = test_input ($_POST["website"]);
        if (! preg_match ("/\b(?: (?:https? / ftp:)\/\/www
                           \.) [-a-z 0-9 +&@#\/%.?=
                           ~_!!.;.;] *[-a-z 0-9 +&@#\/%.
```

```php
= ~]] /i'', $website))
  {
    $websiteErr = "invalid URL";
  } }
  if (empty ($_POST[ "comment"]))
    {
      $comment = "";
    }
  else {
    $comment = test_input ( $_POST [ "comment"]));
  }
  if(empty ($_POST [ "gender"])) {
    $genderErr = " Gender is required";
  }
  else {
    $gender = test_input ($_POST [ "gender"]);
  } }
  function test_input ( $data)
    {
      $data = trim ($data);
      $data = stripslashes ($data);
      $data = htmlspecialchars ($data);
      return $data;
    } ?>
```

Tanu

```html
<h1> PHP registration form </h1>
  <form method = "post" action = "<?php echo htmlspecial
                              char ($_SERVER ["PHP SELF"]);?>">

<input type ="radio" name = "gender" <?php if (isset($gender))
  && $gender =="male") echo "checked"; ?>
    value = "male" >Male
      value ="other">other
   <span class = "error"> * <?php echo $genderErr;?>
   </span> <br> <br>

   <input type = "submit" name = "submit" value="Register">

   </form>
   <?php
   echo "<h2> Your input : </h2>";
   echo $name;
   echo "<br>";
   echo $email
     echo "<br>";

   echo $website;     echo "<br>";

   echo $comment;     echo "<br>";

   echo $gender;      echo "<br>";

   echo "<br> Your data is saved";

      ?>
   </body>
   </html>
```

Tam