G.Venkataswamy Naidu College (Autonomous)

Reaccredited with "A" Grade by NAAC

Kovilpatti – 628 502.

Department of Computer Science

STANDARD OPERATING PROCEDURE (SOP)

INDEX

SEMESTER I (2022-2023)

Name of the Lab./facility	**C Programming Lab**
Purpose	A prime number is a number that is divisible only by two numbers itself and one. The factor of a number is a number that can divide it.
Scope	In our program, we will check dividing the number by each number smaller than that number. If any number smaller than the given number divides it then it is not Prime number. Otherwise, it is a prime number.
Responsibility	Faculty In charge, HOD

CHECK WHETHER THE GIVEN NUMBER IS PRIME OR NOT

PROCEDURE:

- Open the Turbo C and start the program.
- Declare the variables i, n, flag as an integer data type.
- Get any positive number.
- Set the flag value is equal to one using the code

```
for (i=2; i<=n\2; i++) {
if(n%2==0) {flag==1; break;}}
```

- if the input value is equal to 1 display it's not a prime number and nor composite.
- Check the flag value, if it's equal to 0, display it's a prime number otherwise it's not a prime number.
- Stop the program.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**C Programming Lab**
Purpose	Fahrenheit and Celsius are the scales most often used for reporting room, weather, and water temperatures. The Fahrenheit scale is used in the United States, while the Celsius scale is used worldwide.
Scope	To Understand how to The formula for converting Fahrenheit to Celsius is C = 5/9(F-32). Fahrenheit and Celsius are the same at -40°. At ordinary temperatures, Fahrenheit is a larger number than Celsius. For example, body temperature is 98.6 °F or 37 °C.
Responsibility	Faculty In charge, HOD

C PROGRAM TO DO TEMPERATURE CONVERSION.

PROCEDURE:

- Open the Turbo C and start the program.
- Declare the variable Celsius & Fahrenheit as a float data type.
- Get the Celsius value.
- Calculate the Fahrenheit using the formula

  fahrenheit = (celsius * 9 / 5) + 32;
- Display the Fahrenheit values in output screen.
- Stop the program.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**C Programming Lab**
Purpose	To train the students Solve quadratic equations using the Quadratic Formula
Scope	We have already seen how to solve a formula for a specific variable 'in general', so that we would do the algebraic steps only once, and then use the new formula to find the value of the specific variable.
Responsibility	Faculty In charge, HOD

SOLVE THE QUADRATIC EQUATION USING IF STATEMENT

PROCEDURE:

- Declare the variables a, b, c, r1, r2, d as a float data type.
- Get the A, B, C value and calculate the d value using the formula
  d=b*b-4*a*c;
- If d value is equal to 0 we put zero to 'x'. Otherwise check (d<0) if it's true we put x=1 otherwise x=2.
- check x value using switch statement if 'x' is equal to '0', we display "ROOTS ARE REAL AND EQUAL" and calculate r1 & r2 value using the formula
  r1=-b/ (2*a);
  r2=r1;
- if 'x' is equal to '1', we display "ROOTS ARE IMAGINARY" and calculate r1 & r2 value using the formula
  r1=-b/(2*a);
  r2=sqrt(abs(d)/(2*a));
- if 'x' is equal to '2', we display "ROOTS ARE REAL AND UNEQUAL" and calculate r1 & r2 value using the formula
  r1=(-b+sqrt(d)/(2*a));
  r2=(-b-sqrt(d)/(2*a));
- Display the r1 and r2 values
- Stop the program.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**C Programming Lab**
Purpose	The Fibonacci sequence is a sequence where the next term is the sum of the previous two terms. The first two terms of the Fibonacci sequence are 0 followed by 1.
Scope	To Understand to use the numbers in the Fibonacci Sequence don't equate to a specific formula, however, the numbers tend to have certain relationships with each other. Each number is equal to the sum of the preceding two numbers. For example, 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377.
Responsibility	Faculty In charge, HOD

C PROGRAM FOR GENERATE A FIBONACCI SERIES

PROCEDURE:

- Declare the variables t1, t2, nextTerm, n as an integer data type.
- Get the positive number.
- Calculate the Fibonacci Series using the following coding

```
nextTerm = t1 + t2;
while (nextTerm <= n)
  {
    printf("%d, ", nextTerm);
    t1 = t2;
    t2 = nextTerm;
    nextTerm = t1 + t2;
  }
```

- Display the Fibonacci Series in output screen

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**C Programming Lab**
Purpose	To train the students in for Create The transpose of a matrix is a new matrix that is obtained by exchanging the rows and columns.
Scope	In this program, the user is asked to enter the number of rows r and columns c. Their values should be less than 10 in this program. Then, the user is asked to enter the elements of the matrix (of order r*c).
Responsibility	Faculty In charge, HOD

FIND THE TRANSPOSE OF A GIVEN MATRIX

PROCEDURE:

- Declare the variable r, c, i, j and arrays a [10][10],transpose[10][10] as a integer data type.
- Get the Row(r) and Column(c) value.
- Get the matrix elements a[i][j] one by one using for loop.
- Display the matrix elements a[i][j] one by one using for loop.
- Calculate the Transpose of Matrix the following steps

```
for (i = 0; i < r; ++i)
for (j = 0; j < c; ++j)    {
transpose[j][i] = a[i][j]; }
```

- Display the Transpose of matrix elements transpose[i][j] one by one using for loop.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**C Programming Lab**
Purpose	To multiply two matrices**,** the number of columns of the first matrix should be equal to the number of rows of the second matrix**.**
Scope	Two matrices can be multiplied only when they are compatible, which means for the multiplication of matrices to exist the number of columns in the first matrix should be equal to the number of rows in the second matrix, in the above case 'n'. If A is a matrix of order m×n and B is a matrix of order n×p, then the order of the product of matrices is m×p.
Responsibility	Faculty In charge, HOD

C PROGRAM TO MULTIPLY TWO GIVEN MATRICES

PROCEDURE:

- Declare the variable i,j,r1,r2,c1,c2,k and arrays a[10][10],b[10][10],c[10][10] as a integer data type.
- Get the Row (r1) and Column(c1) value of matrix A.
- Get the Row (r2) and Column(c2) value of matrix B.
- Get the matrix elements a[i][j] &b[i][j] one by one using for loop.
- Performing the Matrix multiplication using the following steps

```
for(i=1;i<=r1;i++){
for(j=1;j<=c1;j++){
c[i][j]=0;
for(k=1;k<=c2;k++){
c[i][j]=c[i][j]+(a[i][k]*b[k][j]);
}}}
```

- Display the matrix elements a[i][j], b[i][j] and c[i][j] one by one using for loop.

RECORD TO BE MAINTAINED

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Name of the Lab./facility	**C Programming Lab**
Purpose	To train the students in for write a c function to check if it is palindrome or not.
Scope	A string is said to be palindrome if reverse of the string is same as string. For example, "abba" is palindrome, but "abbc" is not palindrome.
Responsibility	Faculty In charge, HOD

CHECK WHETHER THE GIVEN STRING IS PALINDROME OR NOT

PROCEDURE:

- Declare the variable strsrc[SIZE], strtem[SIZE] as a char data type.
- Get the String value using gets() string function.
- Copy the String value from 'strsrc' to 'strtem' using below step.
  strcpy(strtem,strsrc);
- Reverse the String value using strrev(strtem) string function.
- Compare two String value using strcmp(strsrc,strtem) string function. If the strcmp return '0', display the given string is palindrome.
- Otherwise display the given string is not a palindrome.

RECORD TO BE MAINTAINED

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Name of the Lab./facility	**C Programming Lab**
Purpose	To train the students in for write C Program to find the sum of series 1 + 1/2 + 1/3 + 1/4 + … + 1/N.
Scope	For loop is used to compute the summation of each integer value. Initialize the value of 'i' variable to 1. Check the condition that the value of 'i' variable is less than or equal to the value of 'number' variable. If the condition is true, then execute the iteration of the loop and add the sum of series.
Responsibility	Faculty In charge, HOD

C PROGRAM TO DISPLAY SUM OF SERIES 1 + 1/2 + 1/3 + …. + 1/N

PROCEDURE:

- Declare the variable number, sum = 0, i as a Double data type.
- Get the 'number' value.
- Calculate the sum of the series using the following steps

```
for (i = 1; i <= number; i++)  {
    sum = sum + (1 / i);
if (i == 1)
      printf("\n 1 +");
else if (i == number)
      printf(" (1 / %lf)", i);
else
      printf(" (1 / %lf) + ", i); }
```

- Display the Sum of series values in output screen.

RECORD TO BE MAINTAINED

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SEMESTER II (2022-2023)

Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students in implement the Classes and Objects.
Scope	To Understand how to create the classes and objects in the java program.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR IMPLEMENTNG CLASSES AND OBJECTS

PROCEDURE:

- Start the Program
- Create Class
- Declare the Input and Output Variables
- Create object and access the method
- Implement it with return type and without parameter list
- Implement it with return type and with parameter list
- Implement the constructor by creating classes and objects

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students in implementing constructor and Destructor
Scope	To Understand how to call the sub functions using constructor and destructor.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR CONSTRUCTOR AND DESTRUCTOR

PROCEDURE:

- Start the Program
- Declare and Initialize the input variables
- Create the Constructors
- Create various methods for Subclass
- In derived class extend the previous class
- In main class specify the values and create the object
- Stop

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students in java to overload the methods
Scope	To Understand how to implement the methods by overloading.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR METHOD OVERLOADING

PROCEDURE:

- Start the Program
- Initialize the File Pointer
- Create the class Sum
- Overload Sum with two parameters
- Create int sum
- Create another overloaded sum with two double parameters
- In main function create the object and call the methods
- Print the data in the file

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students in java to implement the inheritance.
Scope	To Understand to perform the operations in inheritance
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR IMPLEMENTING INHERITANCE

PROCEDURE:

- Start the Program
- Declare and Initialize the input variables
- Create the class Bicycle
- Create the constructor for Bicycle class.
- Create various methods for Subclass
- In derived class extend the previous class
- In main class specify the values and create the object
- Stop

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students to check number is whether prime or not.
Scope	To Understand to use of Conditional statements and check whether the given number is prime or not.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR CHECKING THE NUMBER IS PRIME OR NOT

PROCEDURE:

- Creates a class. All code needs to be in a class in order for the Java runtime engine to run it. Note that the entire class is defined within enclosing curly braces
- The **main ()** method, which is always the entry point into a Java program. It also is defined within curly braces. Let's break it down:
  public: This method is public and therefore available to anyone.
  Static: This method can be run without having to create an instance of the class
  void: This method does not return anything.
  (String [] args): This method takes a String argument.
- By the Scanner Method, this is used to get the values from the user. And the if conditional class the test expressions can be checked the statement.
- When the looping statements are used, if the conditions are checked with the conditional statement and it gives positive result.
- Finally, the compiler checks with the conditions and check whether the number is prime or not.

RECORD TO BE MAINTAINED

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Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students in basic programming constructs of Java Language and to explore the features of Java by applying to solve problems. Can develop skills in implementing algorithms through the programming Language JAVA and to explore the features of JAVA by applying sample problems.
Scope	To Understand and implement the functions in Multi-Threading
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR MULTI THREADING

PROCEDURE:

- Start the Program
- Declare and Initialize the Variables
- Create the class Multi-Threading Demo
- Declare the method run
- Create the class Multithreads
- Specify number of Threads
- In main method create the object and start
- Stop

RECORD TO BE MAINTAINED

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Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students in for Create User Controls in interface.
Scope	To Understand to use User controls through interfaces.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR IMPLEMENT INTERFACE

PROCEDURE:

- Start the Program
- Import the GUI packages
- Create new frame and set sizes
- In showeventdemo add button and listeners
- In buttonclicklistener check whether the button is clicked
- STOP

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students in Java Applet
Scope	To Understand to Applet controls and the insertion of buttons and labels.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR INSETING JAVA APPLET

PROCEDURE:

- Creates a class. All code needs to be in a class in order for the Java runtime engine to run it. Note that the entire class is defined within enclosing curly braces
- The main () method, which is always the entry point into a Java program. It also is defined within curly braces. Let's break it down:

  public: This method is public and therefore available to anyone.

  Static: This method can be run without having to create an instance of the class

  void: This method does not return anything.

  (String [] args): This method takes a String argument.
- Import applet
- Import graphics
- Add labels
- STOP

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**Programming with JAVA LAB**
Purpose	To train the students in Java Packages.
Scope	To Understand the uses of Packages and implement use packages to avoid name conflicts, and to write a better maintainable code.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR JAVA PACKAGES

PROCEDURE:

- Creates a class. All code needs to be in a class in order for the Java runtime engine to run it. Note that the entire class is defined within enclosing curly braces
- The main () method, which is always the entry point into a Java program. It also is defined within curly braces. Let's break it down:
  public: This method is public and therefore available to anyone.
  Static: This method can be run without having to create an instance of the class
  void: This method does not return anything.
  (String [] args): This method takes a String argument.
- Import package
- Create Class A
- Create Class B
- Get output.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**WEB PROGRAMMING LAB**
Purpose	To train the students in Web Page Creation
Scope	To Understand how to Design the static web pages in HTML
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR CREATING WEB PAGE FOR THE BOOK STORE WEBSITE

PROCEDURE:

- Home page: - the static home page must contain three pages
- Top frame: - logo and college name and links to homepage, login page, registration page and catalogue page
- Left frame: - at least four links for navigation which will display the catalogue of Respective links
- Right frame: - the pages to links in the left frame must be loaded here initially it Contains the description of the website.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

DEPARTMENT OF COMPUTER SCIENCE

STANDARD OPERATING PROCEDURE

SEMESTER III (2022-2023)

Name of the Lab./facility	**Web Programming LAB**
Purpose	To train the students JavaScript to validate the following fields of the Registration page.
Scope	To Understand how to validate the fields of login and registration pages JavaScript is used. JavaScript is programming code that can be inserted into HTML pages. JavaScript inserted into HTML pages, can be executed by all modern web browsers. JavaScript is mainly used for validating the elements in a form submitted by the user. This JavaScript code can react to user events.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR JAVASCRIPT TO VALIDATE THE FOLLOWING FIELDS OF THE REGISTRATION PAGE.

PROCEDURE:

- First Name (Name should contain alphabets and the length should not be less than 6 characters).
- Password (Password should not be less than 6 characters' length).
- E-mail id (should not contain any invalid and must follow the standard pattern name@domain.com)
- Mobile Number (Phone number should contain 10 digits only).
- Last Name and Address (should not be Empty).
- To validate the fields of registration page using JavaScript.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**Web Programming LAB**
Purpose	To train the students Develop and demonstrate the usage of inline, internal and external style sheet using CSS.
Scope	To Understand how to implement the font styles and colors in Web Technology using HTML CSS.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR HTML CSS PAGE

PROCEDURE:

- Design a web page using CSS which includes the following:
- Use different font styles
- Control the repetition of image with background-repeat and no-repeat property
- Define style for links as a: link, a: active, a: hover, a: visited
- Add customized cursors for links.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**Web Programming LAB**
Purpose	To train the students in Develop and demonstrate JavaScript with POP-UP boxes and functions for the following problems:
Scope	To Understand to perform the operations in JavaScript with POP-UP boxes and functions.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR DEVELOP AND DEMONSTRATE JAVASCRIPT WITH POP-UP BOXES AND FUNCTIONS

PROCEDURE:

- Input: Click on Display Date button using onclick( ) function
- Output: Display date in the textbox
- Input: A number n obtained using prompt
- Output: Factorial of n number using alert
- Input: A number n obtained using prompt
- Output: A multiplication table of numbers from 1 to 10 of n using alert
- Input: A number n obtained using prompt and add another number using confirm
- Output: Sum of the entire n numbers using alert

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**Web Programming LAB**
Purpose	To train the students to use the customized properties in the HTML
Scope	To Understand to an HTML page that contains a selection box with a list of 5 countries
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR THE CUSTOMIZED PROPERTIES IN THE HTML

PROCEDURE:

- Design a web page using CSS which includes the following:
- Use different font styles
- Control the repetition of image with background-repeat and no-repeat property
- an HTML page that contains a selection box with a list of 5 countries.
- When the user selects a country, its capital should be printed next in the list.
- Add CSS to customize the properties of the font of the capital (color, bold and font size).

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**Web Programming LAB**
Purpose	To train the students to convert the number to Words in Java Script
Scope	To Understand and implement HTML page including any required JavaScript that takes a number from text field in the range of 0 to 999 and shows it in words. It should not accept four and above digits, alphabets and special characters.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR CONVERSION OF NUMBERS TO WORDS.

PROCEDURE:

- Start the Program
- An HTML page including any required JavaScript that takes a number from text field in the range of 0 to 999 and shows it in words.
- It should not accept four and above digits, alphabets and special characters.
- To convert number to words using JavaScript

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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SEMESTER V (2022-2023)

Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in Arithmetic Operation Using Textboxes and Buttons
Scope	To Understand how to get input form users and display results to them
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR ARITHMETIC OPERATIONS

PROCEDURE:

- Open Visual Studio-->File Menu --->New project.
- Choose Windows Form application.
- Start project as Windows Forms app 9.
- Maximize Box is set to False.
- Start Location may be central or Windows default location as required.
- Drag and Drop buttons, labels and text boxes from the toolbar.
- A button accepts clicks. In this project five buttons are used, that accept click events and perform actions in the user interface.
- In this project, three labels are used to display text on a form.
- Three text boxes are used - two of which are used to get user input and the remaining one is for displaying the result.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in Upload and Display Image using File Upload Control
Scope	To Understand how to upload images and signature form system server ,This concept used in real time application(Ex:TNPSC, NTA NET….Etc)
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR UPLOAD AND DISPLAY IMAGE USING FILE UPLOAD CONTROL

PROCEDURE:

- Open the Visual Studio –> Create a new empty Web application.
- Create a New web page for display File Upload control.
- Drag and drop File Upload control on web page along with one Button control from Toolbox.
- Write server side code in button click event for upload image using File Upload control.
- Create new folder “img” in solution explorer to store images.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in create an advertisement using Ad Rotator Control
Scope	To Understand how to upload images and signature form system server ,This concept used in real time application(Ex: University & College Websites…Etc)
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR CREATE AN ADVERTISEMENT USING AD ROTATOR CONTROL

PROCEDURE:

- Open Visual Studio –> Create a new empty web application / website.
- Create New web page for display AdRotator control.
- Drag and drop AdRotator Control on web page from toolbox.
- Right click on Solution Explorer –> Add New Item **–>** Add New XML File in project for write advertisement detail.
- Write code in xml file for advertisement.
- Assign XML File to Advertisement File Property of AdRotator control.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in display day, Month and Date using Calendar Control
Scope	To Understand to use calendar controls for display date,Month and Years,This concept used in real time application(Ex:College Website….Etc)
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR DISPLAY DAY, MONTH AND DATE USING CALENDAR CONTROL

PROCEDURE:

- Open your ASP.NET application and open the page where you are intended to add a calendar control
- Simply drag-drop the control
- Directly edit or type control in the markup i.e. aspx file (as shown in the syntax)
- Here I am adding the control by drag-drop, once you add the control it will look like below snippet.
- Now right-click on the control and select properties option, it will show property panel as below. We can see many properties will help with the layout, style, appearance, etc.
- From this panel, you can do styling and event handling for the calendar control. Here n this example, I have marked the weekend in bold and Today's date in green color.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in Validation Controls
Scope	To Understand to use Validation controls for Enter the details correctly in application Forms, this concept used in real time application (Ex: Creating E Mail ID Account ,Facebook Account….Etc)
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR VALIDATION CONTROL

PROCEDURE:

- Start Visual Studio.
- Now, we need to create a website using "File" -> "New" -> "Website".
- Now, select the ASP.NET Empty Website and click on the OK button
- Now, add the Web form by right-clicking on the website and provide a name to the Web Form.
- After the web form is created, we will design the form as shown in the following screenshot.
- We will write the following code in the Validator.aspx page.
- Now, we need to execute the web form using the F5 key and will get the following window form.
- Now, check whether the validation is working correctly or not. When we click on the submit button, then the following error can be seen.
- Now, check the email validation on the web form. If we write the wrong email-id, then the error message appears on the form.
- Now, we need to check the password validation. If we are writing a different password into the password textboxes, then the error message appears on the web form.
- Now, we need to check the validation of the dropdown list. If we don't select the country name, then the following error message appears: "plz select your country name".

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in display data in grid View
Scope	To Understand to use data in grid view for display data, This concept used in real time application(Ex:College and University Fees Details Applications….Etc)
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR DISPLAY DATA IN GRID VIEW

PROCEDURE:

- Create new project in Visual Studio 2015.
- Go to File-> New-> Website -> Visual C#-> ASP.NET empty Website-> Entry Application Name-> OK.
- Add Web form to the Website.
  Project name-> Add-> Add New Item-> Web Form-> write name ->Add.
- HomePage.aspx (Web form) page is created.
- Click Design Button-> Add Grid View from Toolbox. Toolbox-> Data-> Grid View.
- Right Click on Grid View-> select View Code.
- Add the namespaces, mentioned below, in the code back-end page.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in for Create User Control with source
Scope	To Understand to use User controls for creating own login page using user name and password
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR CREATE USER CONTROL WITH SOURCE

PROCEDURE:

- Launch VS.Net Start-> Programs->visual studio.net30
- Create a new project
- Select file ->New->Project->Visual Basic->Windows Forms Control Library
- Give name to the project “My Control Library” Press ok button.
- Add a user control to a project
- In the solution explorer window right click the project name (My Control Library)
- Give rename to the user control “login” press ok button.

RECORD TO BE MAINTAINED

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Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in for Login Page using Session Variable
Scope	To Understand to use Session Variable for Login Page, this Concept is used in Real Time Application(Ex:Online Exam Application Websites)
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR LOGIN PAGE USING SESSION VARIABLE

PROCEDURE:

- Open Visual Studio 2010.
  Then Click on "New Project" -> "WEB" -> "ASP.NET Empty Web Application".
- Now click on Solution Explorer.
- Now right-click on the "Add" -> "New Item" -> "Web Form" and add the name of the web form and I had added 2 Web Form1.aspx and Web Form2.aspx.
- After adding the web form the following code is added to Web Form1.aspx.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**ASP.Net LAB**
Purpose	To train the students in for Student Mark List using SQL Provider
Scope	To Understand to use SQL Provider for Save and Retrieve data form Database, This concept used in real time application(Ex:College Website….Etc)
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR STUDENT MARK LIST USING SQL PROVIDER

PROCEDURE:

- First open your visual studio-->File-->New-->website-->ASP.NET Empty Website -->OK--Open solution Explorer-->Add New Web Form (Default.aspx). Now Add an Database.mdf file in your website -->Make a student table
- Now open your Default.aspx page -->Click Source button from below-->Write the following Grid view layout code (html code)
- Now click Design from the below of Default.aspx page-->you will see following layout
- Now go properties of Grid view control-->Click Events-->Row command-->write command Name-->Double click on that for generating the handler
- Now double click on the page (or press F7) -->write the following codes on default.aspx.cs
- Now Add another web form (print.aspx) -->click Source button -->and write Grid view layout codes (html and java script)
- Now Double click on print.aspx page (or press F7)
- Now Run the Application (press F5) -->Follow the following points to run the Grid view application perfectly,

RECORD TO BE MAINTAINED

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DEPARTMENT OF COMPUTER SCIENCE

STANDARD OPERATING PROCEDURE

SEMESTER V (2022-2023)

Name of the Lab./facility	**Mobile Application Development Lab**
Purpose	To train the students in create a mobile application Using layouts and Listeners.
Scope	To Understand How To Develop An Application That Uses Layout Managers And Event Listeners.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR USING LAYOUT MANAGERS AND EVENT LISTENERS.

PROCEDURE:

- Start the application by Click on File -> New and choose Android Application Project and type the application name for the project and click on the next button.
- Create an activity by selecting blank activity and then click next.
- A blank activity will be created and finally click finish button.
- On clicking the finish button a new project will be created from which the java code and layout code can be opened.
- Go to xml code of design change the layout to "Relative Layout"
- Add button2 component to display result & change the following properties:
  - Size: 36sp
  - Text: color
  - Center-Align
- Add text view component to display result & change the following properties:
  - Size: 36sp
  - Text: color
  - Center-Align
- Type the XML program in layout code and type the Java program in java file.
- Run the project by right clicking on your project in **Package Explorer** window on the left and choose **Run As => Android Application.**
- Now the application is opened in the emulator for use.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**Mobile Application Development Lab**
Purpose	To train the students in create an application and change font color and size Using GUI Components.
Scope	To Understand how to develop user interface application.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR USING GUI COMPONENTS, FONT AND COLORS

PROCEDURE:

- Start the application by Click on File -> New and choose Android Application Project and type the application name for the project and click on the next button.
- Create an activity by selecting blank activity and then click next.
- A blank activity will be created and finally click finish button.
- On clicking the finish button a new project will be created from which the java code and layout code can be opened.
- Go to xml code of design change the layout to "Relative Layout"
- Add button2 component to display result & change the following properties:
  - Size: 36sp
  - Text: color
  - Center-Align
- Add text view component to display result & change the following properties:
  - Size: 36sp
  - Text: color
  - Center-Align
- Type the XML program in layout code and type the Java program in java file.
- Run the project by right clicking on your project in **Package Explorer** window on the left and choose **Run As => Android Application.**Now the application is opened in the emulator for use

RECORD TO BE MAINTAINED

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Name of the Lab./facility	**Mobile Application Development Lab**
Purpose	To train the students in develop mobile application that draw a basic shapes
Scope	To Understand How To Develop An Application That Uses Graphic Shapes.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR DRAWS BASIC GRAPHICAL PRIMITIVES ON THE SCREEN

PROCEDURE:

- Go to res folder and select layout. Double click the main.xml file and type the code.
- Go to project explorer and select src folder. Now select mainactivity.java file and type the code.
- Go to xml code of design change the layout to "Relative Layout"
- Add Textview,textview1,textview2,textview3 component & change the following properties:
  - Size: 36sp .
  - Text (Text view):Square, (Texview1):Rectangle,(Textview3):Circle,(Textview3):Line
  - Center-Align .
- Add Four Image Button component to display result & change the following properties:
  - Size: 36sp
  - text(Button)="Triangle"
  - text(Button)="circle"
  - text(Button)="line"
- Run the project by right clicking on your project in **Package Explorer** window on the left and choose **Run As => Android Application.**
- Now the application is opened in the emulator for use.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**Mobile Application Development Lab**
Purpose	To Train The Students In Create An Mobile Application Implementing Multi-Threading concept.
Scope	To Understand how to use data Thread creation by implementing the Runnable Interface, This concept used in real time application
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR MULTI THREADING

PROCEDURE:

- Start the application by Click on File -> New and choose Android Application Project and type the application name for the project and click on the next button.
- Create an activity by selecting blank activity and then click next.
- A blank activity will be created and finally click finish button.
- On clicking the finish button a new project will be created from which the java code and layout code can be opened.
- Go to res folder and select layout. Double click the main.xml file and type the code.
- Go to project explorer and select src folder. Now select mainactivity.java file and type the code.
- Run the emulator before execute the application by, Windows->Virtual Device manager->create new emulator first time->set the properties->Launch the emulator.
- Run the project by right clicking on your project in **Package Explorer** window on the left and choose **Run As => Android Application.**
- Now the application is opened in the emulator for use.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
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Name of the Lab./facility	**Mobile Application Development Lab**
Purpose	To train the students android program .to implement write and read a file to external device.
Scope	To understand how to develop an android application that writes data to the sd card
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR WRITES DATA TO THE SD CARD

PROCEDURE:

- Go to res folder and select layout. Double click the main.xml file and type the code.
- Go to project explorer and select src folder. Now select mainactivity.java file and type the code.
- Go to xml code of design change the layout to "Relative Layout"
- Add Textview component & change the following properties:
  - Size: 36sp .
  - Center-Align .
- Add Three Button component to display result & change the following properties:
  - Size: 36sp
  - text(Button)="Write a data"
  - text(Button)="Read a Data"
  - text(Button)="Clear"
- Run the emulator before execute the application by, Windows->Virtual Device manager->create new emulator first time->set the properties->Launch the emulator.
- Now the application is opened in the emulator for use.

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record

Name of the Lab./facility	**Mobile Application Development Lab**
Purpose	To train the students in create a sample mobile application.
Scope	To Understand How To Create and design A Application. Uses Emulator To Run The Application.
Responsibility	Faculty In charge, HOD

STANDARD OPERATING PROCEDURE FOR A SAMPLE MOBILE APPLICATION

PROCEDURE:

- Start the application by Click on File -> New and choose Android Application Project
- Type the application name for the project and Create an activity by selecting blank activity.
- A blank activity will be created and finally click finish button.
- On clicking the finish button a new project will be created from which the java code and layout code can be opened.
- Go to res folder and select layout. Double click the main.xml file and type the code.
- Type the code for main.xml or drag and drop various components used in our program.
- Add Textview component & change the following properties:
    - Size: 36sp .
    - Text:"HELLO WORLD"
    - Center-Align .
- components used in the xml program
- Save the program and Run the program
- Output can be viewed in the android emulator

RECORD TO BE MAINTAINED

1. Laboratory Manual containing the experiments that can be performed with the equipment
2. Maintenance Record