



JSPM's
JAYAWANTRAO SAWANT POLYTECHNIC,
Handewadi Road, Hadapsar, Pune-28
Department of Information Technology
Academic Year 2025-26



Practical Plan

Practical No :- 1

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale

Name of Experiment	* Write a program to display " Hello World " using: <ul style="list-style-type: none">• Console.log()• document.write()• alert ()
Prerequisite	Basic HTML, JS
Equipment's to be used	PC, Browser
Procedure (Key points)	Create HTML, add JS methods
In between check points during experimentation	Check console, alert popup
Safety measurements	Avoid infinite alerts
Analysis of result	Compare methods
Question To be asked	Difference between console.log & document.write?

Subject Teacher

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Practical No :2

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to display "Welcome " using Python script
Prerequisite	Python basics
Equipment's to be used	Python interpreter
Procedure (Key points)	Create script, print message
In between check points during experimentation	Script runs?
Safety measurements	Use correct syntax
Analysis of result	Program outputs message
Question To be asked	How print() works?

Subject Teacher

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Practical No :- 3

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale .

Name of Experiment	Create objects for the given problem with JSON
Prerequisite	Basic understanding of the related technology
Equipment's to be used	Laptop/PC, Required Software
Procedure (Key points)	Follow standard procedure steps for the experiment topic
In between check points during experimentation	Verify intermediate outputs/behaviors
Safety measurements	Avoid syntax errors and follow safe coding practices
Analysis of result	Evaluate correctness of output
Question To be asked	Explain core concept behind the experiment

Subject Teacher

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Practical No :- 4

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	1. Setup Angular development environment using. • Installation of Node.js and npm• Installation of Angular CLI 2. Write a program to display "Good Morning " Message on web page
Prerequisite	Angular basics
Equipment's to be used	Angular CLI
Procedure (Key points)	Create component → edit HTML → interpolate message
In between check points during experimentation	Check build without errors
Safety measurements	Follow Angular folder structure
Analysis of result	Message displayed
Question To be asked	

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Practical No : 5

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write AngularJS program to design form using various controls and apply validations on input
Prerequisite	HTML forms
Equipment's to be used	AngularJS library
Procedure (Key points)	Create form → add ng-model → add validations
In between check points during experimentation	Check real-time validation
Safety measurements	Avoid invalid model names
Analysis of result	Errors highlighted properly
Question To be asked	List AngularJS validation directives

Subject Teacher

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Practical No :6

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to display data model view and display data for given problem
Prerequisite	Basic understanding of AngularJS basics
Equipment's to be used	Browser
Procedure (Key points)	Bind model using ng-model → display via {{}}
In between check points during experimentation	Check two-way binding
Safety measurements	Ensure AngularJS loaded
Analysis of result	Model updates live
Question To be asked	What is \$scope?

Subject Teacher

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Practical No :- 7

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to display two - way data binding
Prerequisite	Basic Understanding of Data binding concept
Equipment's to be used	AngularJS
Procedure (Key points)	Use ng-model → update model → reflect in UI
In between check points during experimentation	Check instant update
Safety measurements	Avoid binding to undefined variables
Analysis of result	Binding functional
Question To be asked	One-way vs two-way binding?

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Practical No :8

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to implement different filters in AngularJS
Prerequisite	Basic understanding of AngularJS basics
Equipment's to be used	Browser
Procedure (Key points)	Apply uppercase, lowercase, currency filters
In between check points during experimentation	Check formatting
Safety measurements	Use correct pipe syntax
Analysis of result	Data transforms correctly
Question To be asked	What is custom filter?

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Practical No : 9

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale. .

Name of Experiment	Write a program to implement different events in Angular JS
Prerequisite	Basic understanding of Event basics
Equipment's to be used	Browser, AngularJS
Procedure (Key points)	Use ng-click, ng-change, ng-submit
In between check points during experimentation	Check event triggers
Safety measurements	Avoid inline JS
Analysis of result	Events trigger correctly
Question To be asked	Name AngularJS event directives

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Practical No : 10

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty:Ms.P.R.Wale.

Name of Experiment	Write a program displaying data in a table
Prerequisite	Loops in AngularJS
Equipment's to be used	Browser
Procedure (Key points)	Use ng-repeat to create table rows
In between check points during experimentation	Check row count
Safety measurements	Avoid wrong repeat syntax
Analysis of result	Table loads correctly
Question To be asked	What is ng-repeat?

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Practical No : 11

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to implement CSS to table data-odd and even rows
Prerequisite	CSS selectors
Equipment's to be used	Browser
Procedure (Key points)	Use tr:nth-child(even/odd)
In between check points during experimentation	Check alternating colors
Safety measurements	Choose accessible color contrast
Analysis of result	Rows visually alternate
Question To be asked	Difference between pseudo-classes & classes?

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Practical No :- 12

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write programs for implementation of different methods of AngularJS Controllers
Prerequisite	Basic understanding of JS functions
Equipment's to be used	Browser
Procedure (Key points)	Create controller → add multiple functions → bind to UI
In between check points during experimentation	Check function outputs
Safety measurements	Keep controller light
Analysis of result	Functions run correctly
Question To be asked	What is dependency injection?

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Practical No : 13

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write programs to demonstrate use of controllers in external files
Prerequisite	JS modules
Equipment's to be used	Editor
Procedure (Key points)	Create external JS file → link → reference controller
In between check points during experimentation	Check path correctness
Safety measurements	Avoid global scope pollution
Analysis of result	Controller loads
Question To be asked	Why use external controllers?

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Practical No :-14

Class: TY

Name of Subject & Code:CSS(316005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to handle data using React form
Prerequisite	Basic understanding of React basics
Equipment's to be used	Node, Browser
Procedure (Key points)	Use props/state → display in component
In between check points during experimentation	Check component rendering
Safety measurements	Avoid mutating state directly
Analysis of result	Data displayed correctly
Question To be asked	Difference between props & state?

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Practical No : 15

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to pass function argument into React component
Prerequisite	Basic understanding of React props
Equipment's to be used	Browser
Procedure (Key points)	Pass callback → trigger via event
In between check points during experimentation	Check argument passing
Safety measurements	Bind functions properly
Analysis of result	Parent-child communication works
Question To be asked	Explain lifting state up

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Practical No : 16

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to pass function argument into React program and implemnt the life cycle of React
Prerequisite	Basic understanding of React hooks
Equipment's to be used	Browser
Procedure (Key points)	import useState → update state → re-render
In between check points during experimentation	Check UI update
Safety measurements	Initialize state properly
Analysis of result	State changes reflect
Question To be asked	Why are hooks used?

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Practical No :17

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to implement states of React Hooks
Prerequisite	Basic understanding of React hooks
Equipment's to be used	Browser
Procedure (Key points)	import useState → update state → re-render
In between check points during experimentation	Check UI update
Safety measurements	Initialize state properly
Analysis of result	State changes reflect
Question To be asked	Why are hooks used?

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Practical No :18

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to design real time form using react components
Prerequisite	Basics of React forms
Equipment's to be used	Browser
Procedure (Key points)	Controlled components → update on change
In between check points during experimentation	Check instant updates
Safety measurements	Avoid uncontrolled inputs
Analysis of result	Form responds live
Question To be asked	Difference between controlled & uncontrolled components?

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Practical No : 19

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to apply validations for React form
Prerequisite	Basic understanding of React state
Equipment's to be used	Browser
Procedure (Key points)	Add validation logic → show messages
In between check points during experimentation	Check validation before submit
Safety measurements	Sanitize user input
Analysis of result	Errors show correctly
Question To be asked	Name different validation types

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Practical No: 20

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to manipulate List using key and without key in React
Prerequisite	Basic understanding of React rendering
Equipment's to be used	Browser
Procedure (Key points)	Render list → modify → compare with/without key
In between check points during experimentation	Check console warnings
Safety measurements	Keys must be unique
Analysis of result	Re-render behavior
Question To be asked	Why are keys important?

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Practical No : 21

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to render a list using map function in React
Prerequisite	Basic understanding of Array methods
Equipment's to be used	Browser
Procedure (Key points)	Use map() → return JSX items
In between check points during experimentation	Check loop output
Safety measurements	Do not use index as key
Analysis of result	List displays
Question To be asked	Why avoid index as key?

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Practical No :22

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	Write a program to apply following approaches of css to a React web page Inline styling CSS stylesheetsCSS Modules
Prerequisite	Basics of Arduino, digital pins, IDE installation
Equipment's to be used	Arduino, LED, 220Ω resistor, jumper wires, USB cable
Procedure (Key points)	Connect LED to pin 13. Write digitalWrite HIGH/LOW with delay(). Upload code.
In between check points during experimentation	Correct COM port, LED polarity, resistor in series.
Safety measurements	Avoid short circuits; do not power board from multiple sources.
Analysis of result	LED should blink at programmed intervals.
Question To be asked	What is purpose of delay()? What is digitalWrite?

Subject Teacher

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Practical No : 23

Class: TY

Name of Subject & Code: CSS(314005)

Name of Faculty: Ms.P.R.Wale.

Name of Experiment	<p>The microproject has to be web based real time application suggested by teacher such as :</p> <ul style="list-style-type: none">• Develop a web "Chat Application" having Chat window with send and receive the text,image etc.• Develop a web "Music Player application" where user can get the Album with singer and play the music.
Prerequisite	Basic understanding of React advanced
Equipment's to be used	Node, React
Procedure (Key points)	Create components → manage state → UI → functionality
In between check points during experimentation	Test message sending or music playing
Safety measurements	Validate user input, avoid large files
Analysis of result	App works as intended
Question To be asked	Which architecture was used?

Subject Teacher

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