Vidyavardhini's College of Engineering and Technology
Department of Artificial Intelligence & Data Science

AY: 2025-26

Class:	TE - A IDS	Semester:	Ⅵ
Course Code:	CS C502	Course Name:	W C

Name of Student:	Divya Davane
Roll No. :	13
Assignment No.:	03
Title of Assignment:	React to develop frontend application
Date of Submission:	
Date of Correction:	

Evaluation

Performance Indicator	Max. Marks	Marks Obtained
Completeness	5	3
Demonstrated Knowledge	3	3
Legibility	2	2
Total	10	8

Performance Indicator	Exceed Expectations (EE)	Meet Expectations (ME)	Below Expectations (BE)
Completeness	5	3-4	1-2
Demonstrated Knowledge	3	2	1
Legibility	2	1	0

Checked by

Name of Faculty :

Signature : Brauar

Date : 10/9/25

Implement a React component that manages a contact list. Users should be able to add contacts with field for name, phone number, and email. Include a search bar that filters the list of contacts based on the input. Provide a "Remove" button next to each contact for deletion.

Ans

```javascript
import React, {usestate} from "react";

export default function ContactList()
{ const [contacts, setContacts] = useState([]);
const [search, setSearch] = useState(" ");
const [form, setForm] = useState({ name:" ", phone:"
email:" "});

const handleChange = (e) => {
setForm({...form, [e.target.name]: e.target.value}
};

const addContact = (e) => {
e.preventDefault();
if (!form.name || !form.phone || !form.email) return;
setContacts([...contacts,{...forms, id: Date.now()}])
setForm({ name:" ", phone:" ", email:" "});
};

const removeContact = (id) => {
setContacts(contacts.filter((c) => c.id !== id));
};
```

```jsx
const   filtered Contacts = contacts . filter (
  (c) =>
    c.name . toLower Case (). includes (search . toLower Case ())
    c. phone . includes (search) ||
    c. email. toLower Case (). includes (search . tolower Case ())
  };

  return (
  <div   className = "p-6 max-w-lg mx-auto">
  <h1   className = "text-2xl font-bold mb-4">
  Contact List </h1>
  { /* Search Bar */ }
  <input
  type = "text"
  placeholder = " Search Contact...."
  value = {search}
  onChange = {(e) => set Search (e.target .value)}
  className = "w -full border p-2 mb-4 rounded" />
  { /* Add Contact Form */ }
  <form   onSubmit = {add Contact} className = "space -y-2 mb-6">
  <input type = "text" name = "name" placeholder = "Name"
  value = {form.name}  onChange = {handle Change}
  className = "w-full border p-2 rounded" />
  <input type = "text" name = "phone" placeholder = "Phone"
  value = {form.phone}  onChange = {handle Change}
  className = "w-full border p-2 rounded" />
  <input type = "email" name = "email" placeholder = "Email"
  value = {form.email}  onChange = {handle Change}
  className = "w-full border p-2 rounded"/>
```

```jsx
<button type="submit" className="bg-blue-500 text
-white px-4 py-2 rounded">
Add contact   </button>
</form>

{/* Contact List */}
<ul className="space-y-2">
{filteredContacts.map((c) => (
   <li key={c.id} className="flex justify-between
   items-center border p-2 rounded" >
   <div>
     <p className="font-semibold"> {c.name} </p>
     <p> {c.phone} </p>
     <p> {c.email} </p>
   </div>
   <button onClick={() => removeContact(c.id)}
   className="bg-red-500 text-white px-2 py-1 rounded
   > Remove </button>
   </li>
   ))}
</ul>
</div>
);
}
```

Q.2 Write a code making use of React Hooks that four buttons namely, "Red", "Blue", "Green", "Yellow" on clicking any of these buttons, the code displays a message that you have selected that particular color.

Ans.

```
Import React, { useState } from "react";

export default function ColorSelector() {
  const [ selectedColor, setSelectedColor ] = useState(" ");

  return (
    <div className = " flex flex-col items-center p-6 space-y-4
    <h1 className = "text-xl font-bold"> Choose a Color </h1>
    <div className = "flex space-x-4" >
    <button className = "px-4 py-2 bg-red-500 text-white
    rounded-lg" onClick = {() => setSelectedColor("Red")} >
    Red </button>
    <button className = "px-4 py-2 bg-blue-560 text-white
    rounded-lg" onClick = {() => setSelectedColor("Blue")} >
    Blue </button>
    <button className = "px-4 py bg-green-500 text-white
    rounded-lg" onClick = {() => setSelectedColor("Green")} >
    Green </button>
    <button className = "px-4 py-2 bg-yellow-500 text-black
    rounded-lg" onClick = {() => setSelectedColor("Yellow")} >
    Yellow </button>
    </div>
    { selectedColor && (
    <p className = "mt-4 text-lg" >
```

you have selected
{selectedColor}
.
</p>
)}
</div>
);
}

Q.3 Write the code making use of Hooks useState function that displays the number of times button name "CLICK" is clicked.

Ans

```
import React, {useState} from "react";
export default function ClickCounter() {
const [count, setCount] = useState(0);

return (
<div>
<button onClick={() => setCount(count +1)}>CLICK
</button>
<p> You clicked {count} times. </p>
</div>
);
}.
```