

**CA-2**

**INT252**

**Name: Vansh Chaurasiya**

**RegNo: 12217737**

**RollNo: 53**

**Q.no allotted: 21**

**Code:**

**App.jsx**

```
import './App.css'
import Q1 from './components/Q1'
import Q2 from './components/Q2'
import Footer from './components/Footer'

// tailwind install cmd:
//npm install -D tailwindcss postcss autoprefixer
//npx tailwindcss init -p
function App() {

  return (
    <>
      <Q1 />
      <Q2 />
      <Footer />
    </>
  )
}

export default App
```

## Q1.jsx

```
import { useState } from "react"

export default function Q1() {
    const [amount, setAmount] = useState('')
    const [interest, setInterest] = useState('')
    const [terms, setTerms] = useState('')
    const [pay, setPay] = useState('')
    const [history, setHistory] = useState([])

    return (
        <div className='w-full flex flex-col rounded-lg border shadow-lg shadow-black justify-center items-center'>
            <div className='px-12 py-8 space-y-8 w-full'>
                <h1 className='text-2xl text-center font-bold'>Loan
Calculator</h1>
                <div className='flex justify-center space-y-8'>
                    <div className='w-1/2'>
                        <input
                            type='number'
                            placeholder='Loan Amount'
                            value={amount}
                            onChange={(e) => setAmount(e.target.value)}
                            className='w-full p-2 mb-4 rounded-lg'
                        />
                        <input
                            type='number'
                            placeholder='Interest Rate'
                            value={interest}
                            onChange={(e) => setInterest(e.target.value)}
                            className='w-full p-2 mb-4 rounded-lg'
                        />
                        <input
                            type='number'
                            placeholder='Terms Rate'
                            value={terms}
                            onChange={(e) => setTerms(e.target.value)}
                            className='w-full p-2 mb-4 rounded-lg'
                        />
                        <button
                            onClick={() => {
                                const total = (amount * interest * terms) /
100;
                                setHistory([...history, total]);
                            }}
                        >Calculate</button>
                    </div>
                </div>
            </div>
        </div>
    )
}
```

```

        const monthly = (Number(amount) +
Number(total)) / (terms * 12)
            setPay(monthly)
            setHistory([...history, {
                amount: amount,
                interest: interest,
                terms: terms,
                pay: monthly
            }])
        }
        className='bg-blue-500 text-white p-2 w-full'
    >
    Calculate
    </button>
</div>
</div>
{pay && (
    <h2 className='font-bold text-2xl mb-8'>Monthly Payment:
${pay.toFixed(2)}</h2>
)}
{history.length > 0 && (
    <div className='w-full mb-4'>
        <h1 className='text-xl text-center'>Calculation
History</h1>
        <div className='flex justify-center'>
            <div className='w-1/2'>
                {history.map((pay, index) => (
                    <div key={index} className='p-2 mt-2 bg-
gray-600 rounded-md mb-4'>
                        Amount: ${pay.amount}, Rate:
{pay.interest}%, Terms: {pay.terms} years - Monthly Payment:
${pay.pay.toFixed(2)}
                    </div>
                )))
            <button onClick={() => {
                setHistory([])
                setPay('')
                setAmount('')
                setInterest('')
                setTerms('')
            }} className='bg-red-500 text-white p-2 w-
full'>Clear History</button>
            </div>
        </div>
    </div>

```

```

        </div>
    )
</div>
)
}

```

## Q2.jsx

```

import { useState } from 'react'

export default function Q2() {
    const [inps, setInps] = useState({
        email: '',
        phone: '',
        dob: ''
    });
    const [error, setError] = useState('');

    const handleChange = (e) => {
        const inputName = e.target.name;
        const value = e.target.value;
        setInps(values => ({ ...values, [inputName]: value }));
        setError('');
    }

    const validate = () => {
        const emailCheck = /^[^@\s]+@[^\s@]+\.[^\s@]+$/;
        const phoneCheck = /^\d{10}$/;
        const { email, phone, dob } = inps;
        if (!email || !phone || !dob) {
            setError('Fill all the fields');
            return false;
        } else if (!emailCheck.test(email)) {
            setError('Email is invalid');
            return false;
        } else if (phone.length < 10 || !phoneCheck.test(phone)) {
            setError('Phone number should be of 10 digits');
            return false;
        } else if (new Date(dob) > new Date()) {
            setError('Date Of Birth must not be in future');
            return false;
        } else {

```

```

        setError('Validated');
        return true;
    }
}

const handleSubmit = (e) => {
    e.preventDefault();
    const isValid = validate();
    if (isValid) {
        alert('Personal Information is correct ✅');
    }
}

return (
    <div className='w-full flex flex-col border shadow-lg rounded-lg
shadow-black mt-8 justify-center items-center'>
    <div className='px-12 py-8 space-y-8 w-full'>
        <h1 className='text-2xl text-center font-bold justify-center
items-center'>Personal Information</h1>
        <form onSubmit={handleSubmit} className='w-full flex flex-
col m-6 justify-center items-center space-y-6 px-36'>
            <input
                type="text"
                placeholder='Enter your email'
                name="email"
                value={inps.email || ""}
                onChange={handleChange}
                className='w-full p-2 rounded-lg'
            />
            <input
                type="tel"
                placeholder='Enter your phone number'
                name="phone"
                value={inps.phone || ""}
                onChange={handleChange}
                className='w-full p-2 rounded-lg'
            />
            <input
                type="date"
                placeholder='Enter your date of birth'
                name="dob"
                value={inps.dob || ""}
                onChange={handleChange}
                className='w-full p-2 rounded-lg'
            />
        </form>
    </div>
</div>
)

```

```
        <button type="submit" className='w-full bg-blue-500'>Validate & Submit</button>
      {error && <p className='text-red-500 text-xl'>{error}</p>}
    </form>
  </div>
</div>
)
}
```

## Footer.jsx

```
export default function Footer() {
  return (
    <div className='w-full flex'>
      <footer className='w-full bg-gray-600 text-white p-4 text-center mt-12 rounded-lg'>
        <p>By Vansh Chaurasiya</p>
        <p>Registration No: 12217737</p>
      </footer>
    </div>
  )
}
```

## Output Screenshots:

## Loan Calculator

Loan Amount

Interest Rate

Terms Rate

Calculate

## Personal Information

Enter your email

Enter your phone number

mm/dd/yyyy



Validate & Submit

## Loan Calculator

10000

2

3

Calculate

**Monthly Payment: \$294.44**

Calculation History

Amount: \$10000, Rate: 2%, Terms: 3 years - Monthly  
Payment: \$294.44

Clear History

## Loan Calculator

12000

2

3

Calculate

**Monthly Payment: \$353.33**

### Calculation History

Amount: \$10000, Rate: 2%, Terms: 3 years - Monthly  
Payment: \$294.44

Amount: \$12000, Rate: 2%, Terms: 3 years - Monthly  
Payment: \$353.33

Clear History

## Personal Information

vanshchaurasiya@gmail.com

07447047921

mm/dd/yyyy



Validate & Submit

Fill all the fields

## Personal Information

vanshchaurasiya@gmail.com

07447047921

11/14/2024



Validate & Submit

Phone number should be of 10 digits

## Personal Information

vanshchaurasiya@gmail.com

7447047921

11/14/2024



Validate & Submit

Date Of Birth must not be in future

## Personal Information

vanshchaurasiyagmail.com

7447047921

11/06/2024



Validate & Submit

Email is invalid

**localhost:5173 says**

Personal Information is correct

OK

Amount: \$12000, Rate: 2%, Terms: 3 years - Monthly

Payment: \$353.33

**Clear History**

## Personal Information

vanshchaurasiya@gmail.com

7447047921

11/06/2024



**Validate & Submit**

## Personal Information

vanshchaurasiya@gmail.com

7447047921

11/06/2024



Validate & Submit

By Vansh Chaurasiya  
Registration No: 12217737