

Web application development

(Introduction to Basic React)

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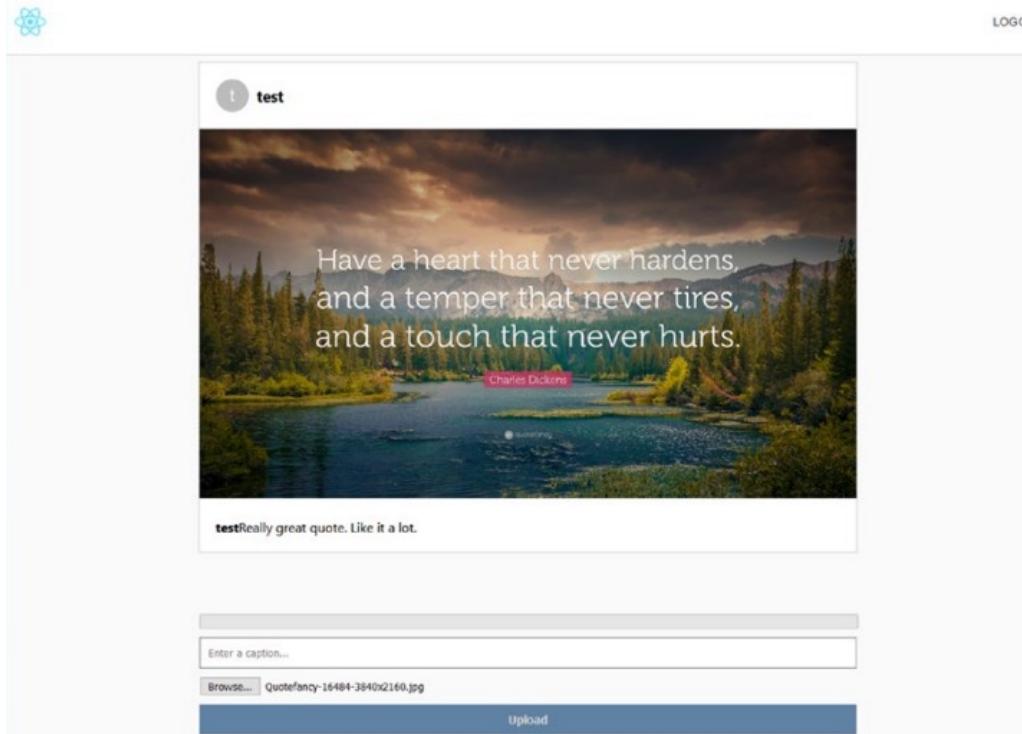


*“We love what we do and we do what our clients
love & work with great clients all over the world
to create thoughtful and purposeful websites.”*

— ProWeb365



Basic React – Exercise 1 – Facebook “phake”



Basic React – Exercise 1 – Facebook “phake” - Structure

```
> .firebase
> public
< src
  < components
    ImageUpload.css
    ImageUpload.js
    Post.css
    Post.js
    App.css
    App.js
    axios.js
    firebase.js
    index.css
    index.js
    .firebaserc
    .gitignore
    firebase.json
    package-lock.json
    package.json
    README.md
```

```
npm package-lock.json
npm package.json
JS postModel.js
JS server.js
```

Basic React – Exercise 1 – Facebook “phake”-Set up firebase



```
import './App.css';
import Post from './components/Post';
import React, { useState, useEffect } from 'react';
import { makeStyles } from '@material-ui/core/styles';
import Modal from '@material-ui/core/Modal';
import { Button, Input } from '@material-ui/core';
import { auth } from './firebase'
import ImageUpload from './components/ImageUpload';
import axios from 'axios';
import Pusher from 'pusher-js'

const pusher = new Pusher('5601e06d285cef4e6836',
| cluster: 'ap2'
);

function getModalStyle() {
  const top = 50;
  const left = 50;

  return {
    top: `${top}%`,
    left: `${left}%`,
    transform: `translate(-${top}%, -${left}%)`,
  };
}

const useStyles = makeStyles((theme) => ({
  paper: {
    position: 'absolute',
    width: 400,
    backgroundColor: theme.palette.background.paper,
    border: '2px solid #000',
    boxShadow: theme.shadows[5],
    padding: theme.spacing(2, 4, 3),
  }
}));
```

```
)};

function App() {
  const classes = useStyles();
  const [modalStyle] = React.useState(getModalStyle);
  const [open, setOpen] = useState(false)
  const [username, setUsername] = useState('')
  const [email, setEmail] = useState('')
  const [password, setPassword] = useState('')
  const [user, setUser] = useState(null)
  const [openSignIn, setOpenSignIn] = useState(false)
  const [posts, setPosts] = useState([])

  useEffect(() => {
    const unsubscribe = auth.onAuthStateChanged(authUser => {
      if(authUser) {
        const setUser: (value: React.SetStateAction<null>) => void
        setUser(authUser)
      } else {
        setUser(null)
      }
    })
    return () => {
      unsubscribe()
    }
  }, [user, username])

  const fetchPosts = async () => {
    await axios.get("/sync").then(response => setPosts(response.data))
  }

  useEffect(() => {
    const channel = pusher.subscribe('posts');
    channel.bind('inserted', (data) => {
      fetchPosts()
    });
    }, [1])

  useEffect(() => {
    fetchPosts()
  }, [1])

  const signUp = (e) => {
    e.preventDefault()
    auth.createUserWithEmailAndPassword(email, password)
      .then(authUser => authUser.user.updateProfile({ displayName: username }))
      .catch(error => alert(error.message))
    setOpen(false)
  }

  const signIn = e => {
    e.preventDefault()
    auth.signInWithEmailAndPassword(email, password)
      .catch(error => alert(error.message))

    setOpenSignIn(false)
  }

  return (
    <div className="app">
      <Modal open={open} onClose={() => setOpen(false)}>
        <div style={modalStyle} className={classes.paper}>
          <form className="app__signup">
            <center>
              
              <Input placeholder="username" />
            </center>
          </form>
        </div>
      </Modal>
    </div>
  );
}
```

Basic React – Exercise 1 – Facebook “phake”-App



```
return (
  <div className="app">
    <Modal open={open} onClose={() => setOpen(false)}>
      <div style={modalStyle} className={classes.paper}>
        <form className="app__signup">
          <center>
            
          </center>
          <Input placeholder="username"
            type="text"
            value={username}
            onChange={e => setUsername(e.target.value)}
          />
          <Input placeholder="email"
            type="text"
            value={email}
            onChange={e => setEmail(e.target.value)}
          />
          <Input placeholder="password"
            type="password"
            value={password}
            onChange={e => setPassword(e.target.value)}
          />
          <Button type="submit" onClick={signUp}>Sign Up</Button>
        </form>
      </div>
    </Modal>
    <Modal open={openSignIn} onClose={() => setOpenSignIn(false)}>
      <div style={modalStyle} className={classes.paper}>
        <form className="app__signup">
          <center>
            
```

```
          {user?.displayName ? <ImageUpload username={user.displayName} /> : <h3 className="app__notLogin">Need to login to upload</h3>}
        </div>
      );
}

export default App;
```

```
</center>
<Input placeholder="email"
  type="text"
  value={email}
  onChange={e => setEmail(e.target.value)}
/>
<Input placeholder="password"
  type="password"
  value={password}
  onChange={e => setPassword(e.target.value)}
/>
<Button type="submit" onClick={signIn}>Sign In</Button>
</form>
</div>
</Modal>
<div className="app__header">
  
  {user ? <Button onClick={() => auth.signOut()}>Logout</Button> : [
    <div className="app__loginContainer">
      <Button onClick={() => setOpenSignIn(true)}>Sign In</Button>
      <Button onClick={() => setOpen(true)}>Sign Up</Button>
    </div>
  ]}
</div>
<div className="app__posts">
  {posts.map(post => (
    <Post
      key={post._id}
      username={post.user}
      caption={post.caption}
      imageUrl={post.image}
    />
  )))
</div>
```

Basic React – Exercise 1 – Facebook “phake”-App



```
.app {  
  display: grid;  
  place-items: center;  
  background-color: #fafafa;  
}  
  
.app_header{  
  display: flex;  
  justify-content: space-between;  
  position: sticky;  
  top: 0;  
  z-index: 1;  
  width: 100%;  
  background-color: white;  
  padding: 20px;  
  border-bottom: 1px solid lightgray;  
  object-fit: contain;  
}  
  
.app_notLogin{  
  margin-bottom: 20px;  
}  
  
.app_loginContainer{  
  margin-right: 10px;  
}  
  
.app_posts {  
  padding: 20px;  
}
```

```
.app_headerImage {  
  object-fit: contain;  
  margin-left: 10px;  
  height: 40px;  
}  
  
.app_signup {  
  display: flex;  
  flex-direction: column;  
}
```

Basic React – Exercise 1 – Facebook “phake”-Post



```
import React from 'react'
import './Post.css'
import { Avatar } from '@material-ui/core'

const Post = ({ username, caption, imageUrl }) => {
  return (
    <div className="post">
      <div className="post__header">
        <Avatar
          className="post__avatar"
          alt={username}
          src="/static/images/avatar/1.jpg"
        />
        <h3>{username}</h3>
      </div>
      <img className="post__image" src={imageUrl} alt="React" />
      <h4 className="post__text"><strong>{username}</strong>{caption}</h4>
    </div>
  )
}

export default Post
```

Basic React – Exercise 1 – Facebook “phake”-Post



```
.post {  
    background-color: white;  
    max-width: 800px;  
    border: 1px solid lightgray;  
    margin-bottom: 45px;  
}  
.post__image {  
    width: 100%;  
    object-fit: contain;  
    border-top: 1px solid lightgray;  
    border-bottom: 1px solid lightgray;  
}  
.post__text {  
    font-weight: normal;  
    padding: 20px;  
}  
.post__header {  
    display: flex;  
    align-items: center;  
    padding: 20px;  
}  
.post__avatar {  
    margin-right: 10px;  
}
```

Basic React – Exercise 1 – Facebook “phake”-Upload Images



```
import React, { useState } from 'react'
import './ImageUpload.css'
import { storage } from "../firebase";
import axios from '../axios'

const ImageUpload = ({ username }) => {
  const [image, setImage] = useState(null)
  const [progress, setProgress] = useState(0)
  const [caption, setCaption] = useState('')
  const [url, setUrl] = useState("");
  const handleChange = e => {
    if(e.target.files[0]) {
      setImage(e.target.files[0])
    }
  }

  const handleUpload = () => {
    const uploadTask = storage.ref(`images/${image.name}`).put(image);
    uploadTask.on(
      "state_changed",
      (snapshot) => {
        const progress = Math.round(
          (snapshot.bytesTransferred / snapshot.totalBytes) * 100
        );
        setProgress(progress);
      },
      (error) => {
        console.log(error);
      },
      () => {
        storage
          .ref("images")
          .child(image.name)
          .getDownloadURL()
      }
    )
  }
}

export default ImageUpload
```

```
.getDownloadURL()
.then((url) => {
  setUrl(url);

  axios.post('/upload', {
    caption: caption,
    user: username,
    image: url
  })

  setProgress(0);
  setCaption("");
  setImage(null);
});

};

return (
  <div className="imageUpload">
    <progress className="imageUpload__progress" value={progress} max="100" />
    <input
      type="text"
      placeholder="Enter a caption..."
      className="imageUpload__input"
      value={caption}
      onChange={e => setCaption(e.target.value)}
    />
    <input className="imageUpload__file" type="file" onChange={handleChange} />
    <button className="imageUpload__button" onClick={handleUpload}>Upload</button>
  </div>
)
```

Basic React – Exercise 1 – Facebook “phake”-Upload Images



```
.imageUpload {  
    display: flex;  
    flex-direction: column;  
    max-width: 800px;  
    width: 100%;  
    margin: 10px auto;  
}  
.imageUpload__progress{  
    width: 100%;  
    margin-bottom: 10px;  
}  
.imageUpload__input{  
    padding: 10px;  
    margin-bottom: 10px;  
}  
.imageUpload__file {  
    margin-bottom: 10px;  
}  
.imageUpload__button {  
    border: none;  
    color: lightgray;  
    background-color: #6082a3;  
    cursor: pointer;  
    padding: 10px;  
    font-weight: bolder;  
    font-size: 0.9rem;  
}  
.imageUpload__button:hover {  
    color: #6082a3;  
    background-color: lightgray;  
}
```

Basic React – Exercise 1 – Facebook “phake”- Set up firebase



The screenshot shows the Firebase Project Overview page for the project "photo-social-mern". The left sidebar contains links for Project Overview, Build (Authentication, Firestore, Realtime Database, Storage, Hosting, Functions, Machine Learning), Release and monitor (Crashlytics, Performance, Test Lab ...), Analytics (Dashboard, Realtime, Events, Conve...), Engage (Predictions, A/B Testing, Cloud Mes...), and Extensions. The main content area shows the "Project settings" tab for the "photo-social-mern" project. It displays the "Web apps" section with one entry: "photo-social-mern Web App". The "App nickname" is set to "photo-social-mern". The "App ID" field is empty. Under "Linked Firebase Hosting site", it shows "photo-social-mern". In the "Firebase SDK snippet" section, the "Config" radio button is selected. A red box highlights this selection. Below it, there is a text area with placeholder text: "Copy and paste these scripts into the bottom of your <body> tag, but before you use any Firebase services." A large red rectangular box covers the "Config" radio button and the "Copy and paste" area. At the bottom right of the main content area, there is a "Remove this app" button.

Basic React – Exercise 1 – Facebook “phake”- Set up firebase



```
import firebase from 'firebase';

const firebaseConfig = {
    apiKey: "REDACTED",
    authDomain: "REDACTED",
    projectId: "REDACTED",
    storageBucket: "REDACTED",
    messagingSenderId: "REDACTED",
    appId: "REDACTED"
};

const firebaseApp = firebase.initializeApp(firebaseConfig)
const db = firebaseApp.firebaseio()
const auth = firebase.auth()
const storage = firebase.storage()

export { db, auth, storage }
```

Basic React – Exercise 1 – Facebook “phake”- axios



```
import axios from 'axios'

const instance = axios.create({
  baseURL: "https://photo-social-backend.herokuapp.com"
})
export default instance
```

Basic React – Exercise 1 – Facebook “phake”-BE – MongoDB Post model



```
import mongoose from 'mongoose'

const postsModel = mongoose.Schema({
  caption: String,
  user: String,
  image: String
})

export default mongoose.model('posts', postsModel)
```

Basic React – Exercise 1 – Facebook “phake”-BE - server



```
import express from 'express'
import mongoose from 'mongoose'
import Cors from 'cors'
import Pusher from 'pusher'
import Posts from './postModel.js'
import dotenv from 'dotenv'

//App Config
dotenv.config()
const app = express()
const port = process.env.PORT || 9000
const connection_url = process.env.DB_CONN

const pusher = new Pusher({
  appId: process.env.PUSHER_ID,
  key: process.env.PUSHER_KEY,
  secret: process.env.PUSHER_SECRET,
  cluster: "ap2",
  useTLS: true
});

//Middleware
app.use(express.json())
app.use(Cors())

//DB Config
mongoose.connect(connection_url, {
  useNewUrlParser: true,
  useCreateIndex: true,
  useUnifiedTopology: true
})

mongoose.connection.once('open', () => {
  console.log('DB Connected')
  const changeStream = mongoose.connection.collection('posts').watch()
  changeStream.on('change', change => {
    console.log(change)
    if(change.operationType === "insert") {
      console.log('Triggering Pusher')
      pusher.trigger('posts','inserted', {
        change: change
      })
    } else {
      console.log('Error triggering Pusher')
    }
  })
})

//API Endpoints
app.get('/', (req, res) => res.status(200).send("Hello TheWebDev"))

app.post('/upload', (req, res) => {
  const dbPost = req.body
  Posts.create(dbPost, (err, data) => {
    if(err)
      res.status(500).send(err)
    else
      res.status(201).send(data)
  })
})

app.get('/sync', (req, res) => {
  Posts.find((err, data) => {
    if(err) {
      res.status(500).send(err)
    } else {
      res.status(200).send(data)
    }
  })
})

//Listener
app.listen(port, () => console.log(`Listening on localhost: ${port}`))
```

Basic React – Exercise 2 – Facebook “phake” likenew



The screenshot shows a Facebook-like application interface. At the top, there's a navigation bar with a search bar labeled "Search Popular", a home icon, and other navigation icons. On the right, a user profile for "Vĩnh Khiêm Trần" is displayed, along with a "Follow Page" button and a "See more" dropdown.

The main content area features a sidebar on the left with links to "Pages", "Friends", "Messenger", "Marketplace", "Videos", and a "More" section. The main feed area shows three posts from users "Nabendu", "TWD", and "Nabendu". Below the feed, there's a status update input field with placeholder "What's on your mind?", a "Choose File" button, and options for "Live Video", "Photo/Videos", and "Feeling/Activity". A comment from "socrates" is visible at the bottom.



Basic React – Exercise 2 – Facebook “phake” likenew - Structure

```
import React from 'react';
import ReactDOM from 'react-dom';
import './index.css';
import App from './App';
import { StateProvider } from './StateProvider';
import reducer, { initialState } from './Reducer';

ReactDOM.render(
  <React.StrictMode>
    <StateProvider initialState={initialState} reducer={reducer}>
      <App />
    </StateProvider>
  </React.StrictMode>,
  document.getElementById('root')
);
```

```
* {
  margin: 0;
}

body {
  margin: 0;
  font-family: -apple-system, BlinkMacSystemFont, 'Segoe UI', 'Roboto', 'Oxygen',
  'Ubuntu', 'Cantarell', 'Fira Sans', 'Droid Sans', 'Helvetica Neue',
  sans-serif;
  -webkit-font-smoothing: antialiased;
  -moz-osx-font-smoothing: grayscale;
}

code {
  font-family: source-code-pro, Menlo, Monaco, Consolas, 'Courier New',
  monospace;
}
```



Basic React – Exercise 2 – Facebook “phake” likenew - App

```
import styled from 'styled-components'
import Feed from './components/Feed'
import Header from './components/Header'
import Login from './components/Login'
import Sidebar from './components/Sidebar'
import Widget from './components/Widget'
import { useStateValue } from './StateProvider';

function App() {
  const [{ user }, dispatch] = useStateValue()

  return (
    <AppWrapper>
      {user ? (
        <>
          <Header />
          <div className="app__body">
            <Sidebar />
            <Feed />
            <Widget />
          </div>
        </>
      ) : (
        <Login />
      )}
    </AppWrapper>
  );
}

const AppWrapper = styled.div`
  background-color: #f1f2f5;
  .app__body {
    display: flex;
  }
`
```

Basic React – Exercise 2 – Facebook “phake” likenew- Set up firebase



```
import firebase from 'firebase';

const firebaseConfig = {
    apiKey: "REDACTED",
    authDomain: "REDACTED",
    projectId: "REDACTED",
    storageBucket: "REDACTED",
    messagingSenderId: "REDACTED",
    appId: "REDACTED"
};

const firebaseApp = firebase.initializeApp(firebaseConfig)
const db = firebaseApp.firebaseio()
const auth = firebase.auth()
const storage = firebase.storage()

export { db, auth, storage }
```



Basic React – Exercise 2 – Facebook “phake”

likenew – Reducer, StateProvider

```
export const initialState = {
  user: null,
}

export const actionTypes = {
  SET_USER: 'SET_USER'
}

const reducer = (state, action) => {
  console.log(action)
  switch (action.type) {
    case actionTypes.SET_USER:
      return [
        ...state,
        user: action.user
      ]
    default: (parameter) state: any
      return state
  }
}

export default reducer
```

```
import React, { createContext, useContext, useReducer } from 'react'

export const StateContext = createContext()

export const StateProvider = ({ reducer, initialState, children }) => (
  <StateContext.Provider value={useReducer(reducer, initialState)}>
    {children}
  </StateContext.Provider>
)

export const useStateValue = () => useContext(StateContext)
```



Basic React – Exercise 2 – Facebook “phake” likenew – Reducer, StateProvider

```
export const initialState = {
  user: null,
}

export const actionTypes = {
  SET_USER: 'SET_USER'
}

const reducer = (state, action) => {
  console.log(action)
  switch (action.type) {
    case actionTypes.SET_USER:
      return [
        ...state,
        user: action.user
      ]
    default: (parameter) state: any
      return state
  }
}

export default reducer
```

```
import React, { createContext, useContext, useReducer } from 'react'

export const StateContext = createContext()

export const StateProvider = ({ reducer, initialState, children }) => (
  <StateContext.Provider value={useReducer(reducer, initialState)}>
    {children}
  </StateContext.Provider>
)

export const useStateValue = () => useContext(StateContext)
```



Basic React – Exercise 2 – Facebook “phake” likenew – Newsfeed

```
import React, { useEffect, useState } from 'react'
import Stories from './Stories'
import styled from 'styled-components'
import Messenger from './Messenger'
import Post from './Post'
import axios from 'axios'
import Pusher from 'pusher-js'

const pusher = new Pusher('e6b78845a265315af885', {
  cluster: 'ap2'
});

const Feed = () => {
  const [postsData, setPostsData] = useState([])

  const syncFeed = () => {
    axios.get('/posts')
      .then(res => {
        console.log(res.data)
        setPostsData(res.data)
      })
  }

  useEffect(() => {
    const channel = pusher.subscribe('posts');
    channel.bind('inserted', (data) => {
      syncFeed()
    });
  }, [])

  useEffect(() => {
    syncFeed()
  }, [])
}
```

```
return (
  <FeedWrapper>
    <Stories />
    <Messenger />
  {
    postsData.map(entry => (
      <Post
        profilePic={entry.avatar}
        message={entry.text}
        timestamp={entry.timestamp}
        imgName={entry.imgName}
        username={entry.user}
      >
    ))
  }
  </FeedWrapper>
}

const FeedWrapper = styled.div`
  flex: 1;
  padding: 30px 150px;
  display: flex;
  flex-direction: column;
  align-items: center;
`
```

export default Feed



Basic React – Exercise 2 – Facebook “phake” likenew – Newsfeed

```
import React from 'react'
import styled from 'styled-components'
import SearchIcon from '@material-ui/icons/Search'
import HomeIcon from '@material-ui/icons/Home'
import FlagIcon from '@material-ui/icons/Flag'
import SubscriptionsOutlinedIcon from '@material-ui/icons/SubscriptionsOutlined'
import StorefrontOutlinedIcon from '@material-ui/icons/StorefrontOutlined'
import SupervisedUserCircleIcon from '@material-ui/icons/SupervisedUserCircle'
import { Avatar, IconButton } from '@material-ui/core'
import AddIcon from '@material-ui/icons/Add'
import ForumIcon from '@material-ui/icons/Flag'
import NotificationsActiveIcon from '@material-ui/icons/NotificationsActive'
import ExpandMoreIcon from '@material-ui/icons/ExpandMore'
import { useStateValue } from '../StateProvider'

const Header = () => {
  const [ { user }, dispatch ] = useStateValue()

  return (
    <HeaderWrapper>
      <HeaderLeft>
        
      </HeaderLeft>
      <HeaderInput>
        <SearchIcon />
        <input placeholder="Search Popular" type="text" />
      </HeaderInput>
      <HeaderCenter>
        <div className="header__option header__option--active">
          <HomeIcon fontsize="large" />
        </div>
        <div className="header__option">
          <FlagIcon fontsize="large" />
        </div>
      </HeaderCenter>
    </HeaderWrapper>
  )
}

export default Header
```

```
<div className="header__option">
  <SubscriptionsOutlinedIcon fontsize="large" />
</div>
<div className="header__option">
  <StorefrontOutlinedIcon fontsize="large" />
</div>
<div className="header__option">
  <SupervisedUserCircleIcon fontsize="large" />
</div>
</HeaderCenter>
<HeaderRight>
  <div className="header__info">
    <Avatar src={user.photoURL} />
    <h4>{user.displayName}</h4>
  </div>
  <IconButton>
    <ImportIcon />
  </IconButton>
  <IconButton>
    <ForumIcon />
  </IconButton>
  <IconButton>
    <NotificationsActiveIcon />
  </IconButton>
  <IconButton>
    <ExpandMoreIcon />
  </IconButton>
</HeaderRight>
</HeaderWrapper>
```

```
const HeaderWrapper = styled.div` 
  display: flex;
  padding: 15px 20px;
  justify-content: space-between;
  align-items: center;
  position: sticky;
  background-color: white;
  z-index: 100;
  top: 0;
  box-shadow: 0px 5px 8px -9px rgba(0, 0, 0, 0.75);
` 

const HeaderLeft = styled.div` 
  display: flex;
  justify-content: space-evenly;
  img {
    height: 40px;
` 

const HeaderInput = styled.div` 
  display: flex;
  align-items: center;
  background-color: #eff2f5;
  padding: 10px;
  margin-left: 10px;
  border-radius: 33px;
  input {
    border: none;
    background-color: transparent;
    outline-width: 0;
` 
```



Basic React – Exercise 2 – Facebook “phake” likenew – Newsfeed

```
const HeaderCenter = styled.div`  
  display: flex;  
  flex: 1;  
  justify-content: center;  
  .header__option{  
    display: flex;  
    align-items: center;  
    padding: 10px 30px;  
    cursor: pointer;  
    .MuiSvgIcon-root{  
      color: gray;  
    }  
    &:hover{  
      background-color: #eff2f5;  
      border-radius: 10px;  
      align-items: center;  
      padding: 0 30px;  
      border-bottom: none;  
      .MuiSvgIcon-root{  
        color: #2e81f4;  
      }  
    }  
    .header__option--active{  
      border-bottom: 4px solid #2e81f4;  
      .MuiSvgIcon-root{  
        color: #2e81f4;  
      }  
    }  
  }  
}
```

```
const HeaderRight = styled.div`  
  display: flex;  
  .header__info {  
    display: flex;  
    align-items: center;  
    h4 {  
      margin-left: 10px;  
    }  
  }  
`
```

```
export default Header
```



Basic React – Exercise 2 – Facebook “phake” likenew – Login

```
import React from 'react'
import styled from 'styled-components'
import { Button } from '@material-ui/core'
import { auth, provider } from '../firebase'
import { useStateValue } from '../StateProvider'
import { actionTypes } from '../Reducer'

const Login = () => {
  const [t, dispatch] = useStateValue()

  const signIn = () => {
    auth.signInWithPopup(provider)
      .then(result => {
        console.log(result)
        dispatch({
          type: actionTypes.SET_USER,
          user: result.user
        })
      })
      .catch(error => alert(error.message))
  }

  return (
    <LoginWrapper>
      <div className="login__logo">
        
        <h1>Popular Social</h1>
      </div>
      <Button type='submit' className="login__btn" onClick={signIn}>Sign In</Button>
    </LoginWrapper>
  )
}
```

```
const LoginWrapper = styled.div`
  display: grid;
  place-items: center;
  height: 100vh;
  .login__logo {
    display: flex;
    flex-direction: column;
    img {
      object-fit: contain;
      height: 150px;
      max-width: 200px;
    }
  }
  .login__btn {
    width: 300px;
    background-color: #2e81f4;
    color: #eff2f5;
    font-weight: 800;
    &:hover {
      background-color: white;
      color: #2e81f4;
    }
  }
}

export default Login
```



Basic React – Exercise 2 – Facebook “phake” likenew – Messenger

```
import React, { useState } from 'react'
import { Avatar, Input } from '@material-ui/core'
import VideocamIcon from '@material-ui/icons/Videocam'
import PhotoLibraryIcon from '@material-ui/icons/PhotoLibrary'
import InsertEmoticonIcon from '@material-ui/icons/InsertEmoticon'
import styled from 'styled-components'
import { useStateValue } from '../StateProvider'
import axios from 'axios'
import FormData from 'form-data'

const Messenger = () => {
  const [input, setInput] = useState('')
  const [image, setImage] = useState(null)
  const [{ user }, dispatch] = useStateValue()

  const handleChange = e => {
    if(e.target.files[0])
      setImage(e.target.files[0])
  }

  const handleSubmit = e => {
    e.preventDefault()
    console.log(image)
    if(image) {
      const imgForm = new FormData()
      imgForm.append('file', image, image.name)
      axios.post('/upload/image', imgForm, {
        headers: {
          'accept': 'application/json',
          'Accept-Language': 'en-US,en;q=0.8',
          'Content-Type': `multipart/form-data; boundary=${imgForm._boundary}`
        }
      })
    }
  }
}
```

```
)}.then(res => {
  const postData = {
    text: input,
    imgName: res.data.filename,
    user: user.displayName,
    avatar: user.photoURL,
    timestamp: Date.now()
  }
  savePost(postData)
}) else {
  const postData = {
    text: input,
    user: user.displayName,
    avatar: user.photoURL,
    timestamp: Date.now()
  }
  savePost(postData)
}
setInput('')
setImage(null)
}

const savePost = async postData => {
  await axios.post('/upload/post', postData)
  .then(res => {
    console.log(res)
  })
}
```

```
return (
  <MessengerWrapper>
    <MessengerTop>
      <Avatar src={user.photoURL} />
      <form>
        <input
          type="text"
          className="messenger__input"
          placeholder="What's on your mind?"
          value={input}
          onChange={e => setInput(e.target.value)}
        />
        <Input
          type="file"
          className="messenger__fileSelector"
          onChange={handleChange}
        />
        <button onClick={handleSubmit} type="submit">Hidden</button>
      </form>
    </MessengerTop>
    <MessengerBottom>
      <div className="messenger__option">
        <VideocamIcon style={{ color: 'red' }} />
        <h3>Live Video</h3>
      </div>
      <div className="messenger__option">
        <PhotoLibraryIcon style={{ color: 'green' }} />
        <h3>Photo/Video</h3>
      </div>
      <div className="messenger__option">
        <InsertEmoticonIcon style={{ color: 'orange' }} />
        <h3>Feeling/Activity</h3>
      </div>
    </MessengerBottom>
  </MessengerWrapper>
)
```



Basic React – Exercise 2 – Facebook “phake” likenew – Messenger

```
</MessengerWrapper>
}

const MessengerWrapper = styled.div`  
display: flex;  
margin-top: 30px;  
flex-direction: column;  
background-color: white;  
border-radius: 15px;  
box-shadow: 0px 5px 7px -7px rgba(0,0,0,0.75);  
width: 100%;  
  
const MessengerTop = styled.div`  
display: flex;  
border-bottom: 1px solid #eff2f5;  
padding: 15px;  
form {  
  flex: 1;  
  display: flex;  
  .messenger__input {  
    flex: 1;  
    outline-width: 0;  
    border: none;  
    padding: 5px 20px;  
    margin: 0 10px;  
    border-radius: 999px;  
    background-color: #eff2f5;  
  }  
  .messenger__fileSelector{  
    width: 20%;  
  }  
}
```

```
.messenger__fileSelector{  
  width: 20%;  
}  
button {  
  display: none;  
}  
  
const MessengerBottom = styled.div`  
display: flex;  
justify-content: space-evenly;  
.messenger__option{  
  padding: 20px;  
  display: flex;  
  align-items: center;  
  color: gray;  
  margin: 5px;  
  h3{  
    font-size: medium;  
    margin-left: 10px;  
  }  
  &:hover{  
    background-color: #eff2f5;  
    border-radius: 20px;  
    cursor: pointer;  
  }  
}  
  
export default Messenger
```



Basic React – Exercise 2 – Facebook “phake” likenew – Post

```
import { Avatar } from '@material-ui/core'
import React from 'react'
import styled from 'styled-components'
import ThumbUpIcon from '@material-ui/icons/ThumbUp'
import ChatBubbleOutlineIcon from '@material-ui/icons/ChatBubbleOutline'
import NearMeIcon from '@material-ui/icons/NearMe'
import AccountCircleIcon from '@material-ui/icons/AccountCircle'
import ExpandMoreOutlined from '@material-ui/icons/ExpandMoreOutlined'

const Post = ({ profilePic, message, timestamp, imgName, username }) => {
  return (
    <PostWrapper>
      <PostTop>
        <Avatar src={profilePic} className="post__avatar" />
        <div className="post__topInfo">
          <h3>{username}</h3>
          <p>{new Date(parseInt(timestamp)).toUTCString()}</p>
        </div>
      </PostTop>
      <PostBottom>
        <p>{message}</p>
      </PostBottom>
      {
        imgName ? (
          <div className="post__image">
            <img src={`https://popular-social-backend.herokuapp.com/images/single?name=${imgName}`} alt="Posts" />
          </div>
        ) : (
          console.log('DEBUG >> no image here')
        )
      }
    </PostWrapper>
  )
}
```

```
<PostOptions>
  <div className="post__option">
    <ThumbUpIcon />
    <p>Like</p>
  </div>
  <div className="post__option">
    <ChatBubbleOutlineIcon />
    <p>Comment</p>
  </div>
  <div className="post__option">
    <NearMeIcon />
    <p>Share</p>
  </div>
  <div className="post__option">
    <AccountCircleIcon />
    <ExpandMoreOutlined />
  </div>
</PostOptions>
</PostWrapper>
}

const PostWrapper = styled.div`
  width: 100%;
  margin-top: 15px;
  border-radius: 15px;
  background-color: white;
  box-shadow: 0px 5px 7px -7px rgba(0,0,0,0.75);
  .post__image{
    img{
      width: 100%
    }
  }
`
```



Basic React – Exercise 2 – Facebook “phake” likenew – Post

```
const PostTop = styled.div`  
  display: flex;  
  position: relative;  
  align-items: center;  
  padding: 15px;  
  .post_avatar{  
    margin-right: 10px;  
  }  
  .post_topInfo{  
    h3{  
      font-size: medium;  
    }  
    p{  
      font-size: small;  
      color: gray;  
    }  
  }  
  
const PostBottom = styled.div`  
  margin-top: 10px;  
  margin-bottom: 10px;  
  padding: 15px 25px;  
  
const PostOptions = styled.div`  
  padding: 10px;  
  border-top: 1px solid lightgray;  
  display: flex;  
  justify-content: space-evenly;  
  font-size: medium;  
  color: gray;  
  cursor: pointer;  
  padding: 15px;
```

```
.post__option {  
  display: flex;  
  align-items: center;  
  justify-content: center;  
  padding: 5px;  
  flex: 1;  
  p {  
    margin-left: 10px;  
  }  
  &:hover {  
    background-color: #eff2f5;  
    border-radius: 10px;  
  }  
}  
  
export default Post
```



Basic React – Exercise 2 – Facebook “phake” likenew – Sidebar

```
import React from 'react'
import SidebarRow from './SidebarRow'
import LocalHospitalIcon from '@material-ui/icons/LocalHospital'
import EmojiFlagsIcon from '@material-ui/icons/EmojiFlags'
import PeopleIcon from '@material-ui/icons/People'
import ChatIcon from '@material-ui/icons/Chat'
import StorefrontIcon from '@material-ui/icons/Storefront'
import VideoLibraryIcon from '@material-ui/icons/VideoLibrary'
import ExpandMoreOutlined from '@material-ui/icons/ExpandMoreOutlined'
import styled from 'styled-components'
import { useStateValue } from '../StateProvider'

const Sidebar = () => {
  const [{ user }, dispatch] = useStateValue()

  return (
    <SidebarWrapper>
      <SidebarRow src={user.photoURL} title={user.displayName} />
      <SidebarRow Icon={LocalHospitalIcon} title="COVID-19 Information Center" />
      <SidebarRow Icon={EmojiFlagsIcon} title="Pages" />
      <SidebarRow Icon={PeopleIcon} title="Friends" />
      <SidebarRow Icon={ChatIcon} title="Messenger" />
      <SidebarRow Icon={StorefrontIcon} title="Marketplace" />
      <SidebarRow Icon={VideoLibraryIcon} title="Videos" />
      <SidebarRow Icon={ExpandMoreOutlined} title="More" />
    </SidebarWrapper>
  )
}

const SidebarWrapper = styled.div`  

`  

  export default Sidebar
```



Basic React – Exercise 2 – Facebook “phake” likenew – Sidebarrow

```
import React from 'react'
import { Avatar } from '@material-ui/core'
import styled from 'styled-components'

const SidebarRow = ({ src, Icon, title }) => {
  return (
    <SidebarRowWrapper>
      {src && <Avatar src={src} />}
      {Icon && <Icon />}
      <p>{title}</p>
    </SidebarRowWrapper>
  )
}

const SidebarRowWrapper = styled.div`
  display: flex;
  align-items: center;
  padding: 10px;
  cursor: pointer;
  &:hover [
    background-color: lightgray;
    border-radius: 10px;
  ]
  p{
    margin-left:20px;
    font-weight: 600;
  }
  .MuiSvgIcon-root{
    font-size:xx-large;
    color: #2e81f4;
  }
`
```

```
import React from 'react'
import Story from './Story'
import styled from 'styled-components'

const Stories = () => {
  return (
    <StoriesWrapper>
      <Story
        image="http://"
        profileSrc="http://"
        title="Nabe"
      />
      <Story
        image="http://"
        profileSrc="http://"
        title="TWD"
      />
      <Story
        image="http://"
        profileSrc="http://"
        title="Nabe"
      />
    </StoriesWrapper>
  )
}

const StoriesWrapper = styled.div`
  display: flex;
`
```



Basic React – Exercise 2 – Facebook “phake” likenew – Story

```
import { Avatar } from '@material-ui/core'
import React from 'react'
import styled from 'styled-components'

const Story = ({ image, profileSrc, title }) => {
  return (
    <StoryWrapper imageUrl={'${image}'}>
      <Avatar src={profileSrc} className='story__avatar' />
      <h4>{title}</h4>
    </StoryWrapper>
  )
}

const StoryWrapper = styled.div`
background-image: url(${props => props.imageUrl ? props.imageUrl : ''});
position: relative;
background-position: center center;
background-size: cover;
background-repeat: no-repeat;
width: 120px;
height: 200px;
box-shadow: 0px 5px 17px -7px rgba(0,0,0,0.75);
border-radius: 10px;
margin-right: 10px;
cursor: pointer;
transition: transform 100ms ease-in;
&:hover {
  transform: scale(1.07);
}
.story__avatar {
  margin: 10px;
  border: 5px solid #2e81f4;
}
```

```
h4 {
  position: absolute;
  bottom: 20px;
  left: 20px;
  color: white;
}

export default Story
```



Basic React – Exercise 2 – Facebook “phake” likenew – Stories

```
import React from 'react'
import Story from './Story'
import styled from 'styled-components'

const Stories = () => {
  return (
    <StoriesWrapper>
      <Story
        image="http://"
        profileSrc=""
        title="Nabe"
      />
      <Story
        image="http://"
        profileSrc=""
        title="TWD"
      />
      <Story
        image="http://"
        profileSrc=""
        title="Nabe"
      />
    </StoriesWrapper>
  )
}

const StoriesWrapper = styled.div`
  display: flex;
`
```

export default Stories



Basic React – Exercise 2 – Facebook “phake” likenew – Widget

```
import styled from 'styled-components'

const Widget = () => {
  return (
    <WidgetWrapper>
      <iframe
        src='[REDACTED]'
        width="340"
        height="1500"
        style={{ border: "none", overflow: "hidden" }}
        scrolling="no"
        frameborder="0"
        allow="encrypted-media"
        title="Facebook Widget"
      >
      </iframe>
    </WidgetWrapper>
  )
}

const WidgetWrapper = styled.div``

export default Widget
```



Basic React – Exercise 2 – Facebook “phake” likenew – BE - MongoDB

```
import mongoose from 'mongoose'

const postsModel = mongoose.Schema({
  user: String,
  imgName: String,
  text: String,
  avatar: String,
  timestamp: String
})

export default mongoose.model('posts', postsModel)
```



Basic React – Exercise 2 – Facebook “phake” likenew – BE - Server

```
//imports
import express from 'express'
import mongoose from 'mongoose'
import cors from 'cors'
import multer from 'multer'
import GridFsStorage from 'multer-gridfs-storage'
import Grid from 'gridfs-stream'
import bodyParser from 'body-parser'
import path from 'path'
import Pusher from 'pusher'
import Posts from './postModel.js'

//app config
Grid.mongo = mongoose.mongo
const app = express()
const port = process.env.PORT || 9000
const connection ... -> import Pusher
const pusher = new Pusher({
  appId: ...,
  key: ...,
  secret: "...",
  cluster: "...",
  useTLS: ...
});

//middleware
app.use(bodyParser.json())
app.use(cors())
```



Basic React – Exercise 2 – Facebook “phake” likenew – BE - Server

```
//DB Config
const connection = mongoose.createConnection(connection_url, {
  useNewUrlParser: true,
  useCreateIndex: true,
  useUnifiedTopology: true
})

let gfs

connection.once('open', () => {
  console.log('DB Connected')
  gfs = Grid(connection.db, mongoose.mongo)
  gfs.collection('images')
})

const storage = new GridFsStorage({
  url: connection_url,
  file: (req, file) => {
    return new Promise((resolve, reject) => {
      const filename = `image-${Date.now()}${path.extname(file.originalname)}`
      const fileInfo = {
        filename: filename,
        bucketName: 'images'
      }
      resolve(fileInfo)
    })
  }
})

const upload = multer({ storage })
```

```
mongoose.connect(connection_url, {
  useNewUrlParser: true,
  useCreateIndex: true,
  useUnifiedTopology: true
})

mongoose.connection.once('open', () => {
  console.log('DB Connected for pusher')
  const changeStream = mongoose.connection.collection('posts').watch()
  changeStream.on('change', change => {
    console.log(change)
    if(change.operationType === "insert") {
      console.log('Trigerring Pusher')
      pusher.trigger('posts','inserted', {
        change: change
      })
    } else {
      console.log('Error trigerring Pusher')
    }
  })
})

//api routes
app.get("/", (req, res) => res.status(200).send("Hello UIT"))

app.post('/upload/image', upload.single('file'),(req, res) => {
  res.status(201).send(req.file)
})
```



Basic React – Exercise 2 – Facebook “phake”

likenew – BE - Server

```
app.get('/images/single',(req, res) => {
  gfs.files.findOne({ filename: req.query.name }, (err, file) => {
    if(err) {
      res.status(500).send(err)
    } else {
      if(!file || file.length === 0) {
        res.status(404).json({ err: 'file not found' })
      } else {
        const readstream = gfs.createReadStream(file.filename)
        readstream.pipe(res)
      }
    }
  })
}

app.post('/upload/post', (req, res) => {
  const dbPost = req.body
  Posts.create(dbPost, (err, data) => {
    if(err)
      res.status(500).send(err)
    else
      res.status(201).send(data)
  })
}

app.get('/posts', (req, res) => {
  Posts.find((err, data) => {
    if(err) {
      res.status(500).send(err)
    } else {
      data.sort((b,a) => a.timestamp - b.timestamp)
      res.status(200).send(data)
    }
  })
})

//listen
app.listen(port, () => console.log(`Listening on localhost: ${port}`))
```



Q & A



**Thank you for cooperating
Gét gó**

*“Coming together is a beginning;
Keeping together is progress;
Working together is success.”*

- HENRY FORD