

```

const fileChangeHandler = async (e) => {
  const file = e.target.files?.[0];
  if (file) {
    setFile(file);
    const dataUrl = await readFileAsDataURL(file);
    setImagePreview(dataUrl);
  }
}

```

Line	Explanation
<code>e.target.files?.[0]</code>	Input se selected image file milti hai. <code>[0]</code> ka matlab first file.
<code>setFile(file)</code>	File ko state me store kar liya (taaki formData me bhej sakein).
<code>readFileAsDataURL(file)</code>	File ko image preview ke liye base64 me convert kiya.
<code>setImagePreview(dataUrl)</code>	React state me preview image ka data store kiya. UI me image dikhane ke liye.
<pre> const createPostHandler = async (e) =&gt; {   const formData = new FormData();   formData.append("caption", caption);   if (imagePreview) formData.append("image", file);    try {     setLoading(true);     const res = await axios.post('http://localhost:8080/api/v1/post/addpost', formData, {       headers: { 'Content-Type': 'multipart/form-data' },       withCredentials: true     });   }    if (res.data.success) {     dispatch(setPosts([res.data.post, ...posts]));     toast.success(res.data.message);     setOpen(false);   } } catch (error) {   toast.error(error.response.data.message); } finally {   setLoading(false); } } </pre>	

Line	Explanation
<code>FormData()</code>	Ek special object banaya jo file + text dono bhej sakta hai.
<code>append("caption", caption)</code>	User ke likhe huye text ko bhejne ke liye.
<code>append("image", file)</code>	Selected image ko formData me bhej rahe hain.
<code>axios.post(...)</code>	API request backend ko bheji — controller trigger hua.
<code>headers...</code>	Bataya ki yeh form-data hai (image/text dono hai).
<code>withCredentials: true</code>	Cookies bhejne ke liye (auth/session ke liye).
<code>res.data.success</code>	Backend se success response aaya toh post list update ho gaya.
<code>dispatch(...)</code>	Redux store me naye post ko daala.
<code>toast.success(...)</code>	Success toast dikhaya.
<code>setOpen(false)</code>	Post modal close ho gaya.
<code>catch(error)</code>	Agar backend se error aaya, uska message dikhaya.
<code>finally</code>	Har case me loading <code>false</code> kiya.

## **BACKEND CODE** **EXPLANATION (Controller)**

js  
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```
export const addNewPost = async (req, res) => {
  try {
    const { caption } = req.body;
    const image = req.file;
    const authorId = req.id;

    if (!image) return res.status(400).json({ message: 'Image required' });

    const optimizedImageBuffer = await sharp(image.buffer)
      .resize({ width: 800, height: 800, fit: 'inside' })
```

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        .toFormat('jpeg', { quality: 80 })
        .toBuffer();

const fileUri = `data:image/jpeg;base64,${optimizedImageBuffer.toString('base64')}`;
const cloudResponse = await cloudinary.uploader.upload(fileUri);

const post = await Post.create({
  caption,
  image: cloudResponse.secure_url,
  author: authorId
});

const user = await User.findById(authorId);
if (user) {
  user.posts.push(post._id);
  await user.save();
}

await post.populate({ path: 'author', select: '-password' });

return res.status(201).json({
  message: 'New post added',
  post,
  success: true,
});

} catch (error) {
  console.log(error);
}
}

```

Line	Explanation
<code>req.body.caption</code>	Frontend se caption receive kiya.
<code>req.file</code>	Frontend se image receive ki.
<code>req.id</code>	Logged-in user ka ID (middleware ke through).
<code>if (!image)...</code>	Agar image nahi mili toh error bhej diya.
<code>sharp(...)</code>	Image compress kiya: 800x800 max, JPEG format.
<code>toBuffer()</code>	Image ko memory buffer me convert kiya.
<code>base64</code>	Cloudinary me base64 format me upload kiya.

<code>cloudinary.uploader.upload(...)</code>	Image cloud pe upload kiya.
<code>Post.create(...)</code>	MongoDB me nayi post banayi.
<code>User.findById(...)</code>	User ko dhoonda jisne post banayi.
<code>user.posts.push(...)</code>	Uske post list me new post add kiya.
<code>post.populate(...)</code>	Author detail post ke saath embed kiya (except password).
<code>res.status(201).json(...)</code>	Frontend ko response bheja — post object ke saath.