Understanding URL.createObjectURL in JavaScript

In JavaScript, **URL.createObjectURL()** is a method that allows you to create a temporary URL that represents a file or a blob object. This is commonly used for previewing files (like images, videos, PDFs) before uploading them to the server. The created URL points to the file object in memory and not on the server.

How it works:
1. When a file is selected using an <input type='file'>, it becomes a **File object** in JavaScript.
2. URL.createObjectURL(file) generates a special temporary URL string that represents the file.
3. You can use this URL in src attributes of elements (like <img>, <video>) to preview the file instantly without uploading it.
4. The browser manages this temporary URL internally until it is revoked using URL.revokeObjectURL().

Example:
Suppose a user uploads a profile picture.

```
function handleFileChange(event) {
  const file = event.target.files[0];
  setPreview(URL.createObjectURL(file));
}
```

Here, setPreview stores the temporary URL (like blob:http://localhost/1234). You can then set <img src={preview}> to show the image before uploading it.

Why use URL.revokeObjectURL()?
The created URLs consume memory. If you create many object URLs without revoking them, memory leaks may occur. Once the file is no longer needed, call URL.revokeObjectURL(preview) to release memory.

Summary:
- URL.createObjectURL() creates a temporary URL for File/Blob objects.
- It allows instant file preview without uploading.
- Use URL.revokeObjectURL() when the file is no longer needed.