

Got you. Let's build a **plain React JS frontend** from scratch for your NestJS Movies & Reviews backend.

- All APIs integrated
- No CSS at all
- Uses `fetch` (no extra libraries)
- Works with backend at `http://localhost:3000`

1. Create React App (Vite + React)

```
```bash
1. Create project
npm create vite@latest movie-frontend -- --template react

cd movie-frontend

2. Install deps
npm install

3. Start dev server
npm run dev
````
```

Your backend should already be running on **http://localhost:3000**.

2. (Backend) Enable CORS (important)

In your NestJS `main.ts` (backend), make sure you have:

```
```ts
import { NestFactory } from '@nestjs/core';
import { AppModule } from './app.module';
import { ValidationPipe } from '@nestjs/common';

async function bootstrap() {
 const app = await NestFactory.create(AppModule);

 app.enableCors({
 origin: 'http://localhost:5173', // Vite frontend
````
```

```
});

app.useGlobalPipes(
  new ValidationPipe({
    whitelist: true,
    forbidNonWhitelisted: true,
    transform: true,
  }),
);

await app.listen(3000);
}
bootstrap();
```

```

### ## 3. Frontend Code

We'll only touch **two files**:

```
* `src/main.jsx`
* `src/App.jsx`
```

No CSS files, no imports of ` `.css`.

---

#### ### 3.1 `src/main.jsx`

Replace everything with:

```
```jsx
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App.jsx';

ReactDOM.createRoot(document.getElementById('root')).render(
  <React.StrictMode>
    <App />
  </React.StrictMode>
);
```

```

---

### ### 3.2 `src/App.jsx`

Replace everything with this (full code, all APIs wired):

```
```jsx
import React, { useEffect, useState } from 'react';

const API_BASE = 'http://localhost:3000';

function App() {
  // Movies
  const [movies, setMovies] = useState([]);
  const [loadingMovies, setLoadingMovies] = useState(false);
  const [moviesError, setMoviesError] = useState("");

  // Selected movie details
  const [selectedMovie, setSelectedMovie] = useState(null);
  const [reviews, setReviews] = useState([]);
  const [loadingReviews, setLoadingReviews] = useState(false);
  const [reviewsError, setReviewsError] = useState("");

  // Create movie form
  const [newMovieTitle, setNewMovieTitle] = useState("");
  const [newMovieGenre, setNewMovieGenre] = useState("");
  const [newMovieReleaseYear, setNewMovieReleaseYear] = useState("");

  // Filters & sorting
  const [filterGenre, setFilterGenre] = useState("");
  const [filterReleaseYear, setFilterReleaseYear] = useState("");
  const [sortBy, setSortBy] = useState("");
  const [sortOrder, setSortOrder] = useState('ASC');

  // Create review form
  const [reviewReviewer, setReviewReviewer] = useState("");
  const [reviewRating, setReviewRating] = useState("");
  const [reviewComment, setReviewComment] = useState("");

  // ----- API functions -----

  async function fetchMovies() {
    try {
      setLoadingMovies(true);
      const response = await fetch(`${API_BASE}/movies`);
      const data = await response.json();
      setMovies(data);
    } catch (error) {
      setMoviesError(error.message);
    }
  }

  function handleSortByChange(event) {
    const value = event.target.value;
    setSortBy(value);
  }

  function handleSortOrderChange(event) {
    const value = event.target.value;
    setSortOrder(value);
  }

  function handleFilterGenreChange(event) {
    const value = event.target.value;
    setFilterGenre(value);
  }

  function handleFilterReleaseYearChange(event) {
    const value = event.target.value;
    setFilterReleaseYear(value);
  }

  function handleCreateMovieSubmit(event) {
    event.preventDefault();
    const newMovie = {
      title: newMovieTitle,
      genre: newMovieGenre,
      releaseYear: newMovieReleaseYear
    };
    fetch(`${API_BASE}/movies`, {
      method: 'POST',
      headers: {
        'Content-Type': 'application/json'
      },
      body: JSON.stringify(newMovie)
    })
      .then(response => response.json())
      .then(data => setMovies([...movies, data]))
      .catch(error => setReviewsError(error.message));
  }

  function handleDeleteMovie(id) {
    fetch(`${API_BASE}/movies/${id}`, {
      method: 'DELETE'
    })
      .then(response => response.json())
      .then(data => {
        const updatedMovies = movies.filter(movie => movie.id !== id);
        setMovies(updatedMovies);
      })
      .catch(error => setReviewsError(error.message));
  }

  function handleUpdateMovie(id, updatedMovie) {
    fetch(`${API_BASE}/movies/${id}`, {
      method: 'PUT',
      headers: {
        'Content-Type': 'application/json'
      },
      body: JSON.stringify(updatedMovie)
    })
      .then(response => response.json())
      .then(data => {
        const updatedMovies = movies.map(movie => {
          if (movie.id === id) {
            return data;
          }
          return movie;
        });
        setMovies(updatedMovies);
      })
      .catch(error => setReviewsError(error.message));
  }

  function handleCreateReviewSubmit(event) {
    event.preventDefault();
    const newReview = {
      reviewer: reviewReviewer,
      rating: reviewRating,
      comment: reviewComment
    };
    fetch(`${API_BASE}/reviews`, {
      method: 'POST',
      headers: {
        'Content-Type': 'application/json'
      },
      body: JSON.stringify(newReview)
    })
      .then(response => response.json())
      .then(data => {
        const updatedReviews = reviews.map(review => {
          if (review.id === newReview.id) {
            return data;
          }
          return review;
        });
        setReviews(updatedReviews);
      })
      .catch(error => setReviewsError(error.message));
  }

  function handleDeleteReview(id) {
    fetch(`${API_BASE}/reviews/${id}`, {
      method: 'DELETE'
    })
      .then(response => response.json())
      .then(data => {
        const updatedReviews = reviews.filter(review => review.id !== id);
        setReviews(updatedReviews);
      })
      .catch(error => setReviewsError(error.message));
  }

  function handleUpdateReview(id, updatedReview) {
    fetch(`${API_BASE}/reviews/${id}`, {
      method: 'PUT',
      headers: {
        'Content-Type': 'application/json'
      },
      body: JSON.stringify(updatedReview)
    })
      .then(response => response.json())
      .then(data => {
        const updatedReviews = reviews.map(review => {
          if (review.id === id) {
            return data;
          }
          return review;
        });
        setReviews(updatedReviews);
      })
      .catch(error => setReviewsError(error.message));
  }

  return (
    <div>
      <h1>Movie App</h1>
      <h2>Movies</h2>
      <table>
        <thead>
          <tr>
            <th>Title</th>
            <th>Genre</th>
            <th>Release Year</th>
            <th>Actions</th>
          </tr>
        </thead>
        <tbody>
          {movies.map(movie => (
            <tr key={movie.id}>
              <td>{movie.title}</td>
              <td>{movie.genre}</td>
              <td>{movie.releaseYear}</td>
              <td>
                <button onClick={()=>handleDeleteMovie(movie.id)}>Delete</button>
                <button onClick={()=>handleUpdateMovie(movie.id, { ...movie, title: prompt('Enter new title') })}>Update</button>
              </td>
            </tr>
          ))}
        </tbody>
      </table>
      <h2>Create Movie</h2>
      <form onSubmit={handleCreateMovieSubmit}>
        <input type="text" value={newMovieTitle} onChange={e=>setNewMovieTitle(e.target.value)} />
        <input type="text" value={newMovieGenre} onChange={e=>setNewMovieGenre(e.target.value)} />
        <input type="text" value={newMovieReleaseYear} onChange={e=>setNewMovieReleaseYear(e.target.value)} />
        <button type="submit">Create</button>
      </form>
      <h2>Filters & Sorting</h2>
      <input type="text" value={filterGenre} onChange={e=>setFilterGenre(e.target.value)} />
      <input type="text" value={filterReleaseYear} onChange={e=>setFilterReleaseYear(e.target.value)} />
      <select value={sortBy} onChange={handleSortByChange}>
        <option value="ASC">ASC</option>
        <option value="DESC">DESC</option>
      </select>
      <select value={sortOrder} onChange={handleSortOrderChange}>
        <option value="ASC">ASC</option>
        <option value="DESC">DESC</option>
      </select>
      <h2>Reviews</h2>
      <table>
        <thead>
          <tr>
            <th>Reviewer</th>
            <th>Rating</th>
            <th>Comment</th>
            <th>Actions</th>
          </tr>
        </thead>
        <tbody>
          {reviews.map(review => (
            <tr key={review.id}>
              <td>{review.reviewer}</td>
              <td>{review.rating}</td>
              <td>{review.comment}</td>
              <td>
                <button onClick={()=>handleDeleteReview(review.id)}>Delete</button>
                <button onClick={()=>handleUpdateReview(review.id, { ...review, rating: prompt('Enter new rating') })}>Update</button>
              </td>
            </tr>
          ))}
        </tbody>
      </table>
      <h2>Create Review</h2>
      <form onSubmit={handleCreateReviewSubmit}>
        <input type="text" value={reviewReviewer} onChange={e=>setReviewReviewer(e.target.value)} />
        <input type="text" value={reviewRating} onChange={e=>setReviewRating(e.target.value)} />
        <input type="text" value={reviewComment} onChange={e=>setReviewComment(e.target.value)} />
        <button type="submit">Create</button>
      </form>
    </div>
  );
}

export default App;
```

```
setMoviesError("");

const params = new URLSearchParams();

if (filterGenre) params.append('genre', filterGenre);
if (filterReleaseYear) params.append('releaseYear', filterReleaseYear);
if (sortBy) params.append('sortBy', sortBy);
if (sortOrder) params.append('sortOrder', sortOrder);

const url = `${API_BASE}/movies${params.toString() ? `?${params.toString()}` : ""}`;

const res = await fetch(url);
if (!res.ok) {
  throw new Error('Failed to fetch movies');
}
const data = await res.json();
setMovies(data);
} catch (err) {
  setMoviesError(err.message || 'Error fetching movies');
} finally {
  setLoadingMovies(false);
}
}

async function fetchMovieById(id) {
try {
  const res = await fetch(`${API_BASE}/movies/${id}`);
  if (!res.ok) {
    throw new Error('Failed to fetch movie');
  }
  const data = await res.json();
  setSelectedMovie(data);
} catch (err) {
  console.error(err);
}
}

async function fetchReviewsByMovieId(movieId) {
try {
  setLoadingReviews(true);
  setReviewsError("");
  const res = await fetch(`${API_BASE}/reviews/${movieId}`);
  if (!res.ok) {
    throw new Error('Failed to fetch reviews');
```

```
        }
        const data = await res.json();
        setReviews(data);
    } catch (err) {
        setReviewsError(err.message || 'Error fetching reviews');
    } finally {
        setLoadingReviews(false);
    }
}

async function createMovie(event) {
    event.preventDefault();

    try {
        setMoviesError('');

        const body = {
            title: newMovieTitle,
        };

        if (newMovieGenre.trim() !== "") {
            body.genre = newMovieGenre;
        }

        if (newMovieReleaseYear.trim() !== "") {
            body.releaseYear = Number(newMovieReleaseYear);
        }

        const res = await fetch(`${API_BASE}/movies`, {
            method: 'POST',
            headers: {
                'Content-Type': 'application/json',
            },
            body: JSON.stringify(body),
        });

        if (!res.ok) {
            const errorText = await res.text();
            throw new Error(errorText || 'Failed to create movie');
        }

        const created = await res.json();
        console.log('Movie created:', created);
    }
}
```

```
// Reset form
setNewMovieTitle("");
setNewMovieGenre("");
setNewMovieReleaseYear("");

// Refresh movie list
await fetchMovies();
} catch (err) {
  setMoviesError(err.message || 'Error creating movie');
}
}

async function createReview(event) {
  event.preventDefault();

  if (!selectedMovie) {
    alert('Select a movie first');
    return;
  }

  try {
    setReviewsError("");

    const body = {
      movielId: selectedMovie.id,
      reviewer: reviewReviewer,
      rating: Number(reviewRating),
    };

    if (reviewComment.trim() !== "") {
      body.comment = reviewComment;
    }

    const res = await fetch(`.${API_BASE}/reviews`, {
      method: 'POST',
      headers: {
        'Content-Type': 'application/json',
      },
      body: JSON.stringify(body),
    });

    if (!res.ok) {
      const errorText = await res.text();
      throw new Error(errorText || 'Failed to create review');
    }
  }
}
```

```
}

const created = await res.json();
console.log('Review created:', created);

// Reset form
setReviewReviewer("");
setReviewRating("");
setReviewComment("");

// Refresh reviews
await fetchReviewsByMovield(selectedMovie.id);
// Optional: refresh movies to reflect rating sorting if needed
await fetchMovies();
} catch (err) {
  setReviewsError(err.message || 'Error creating review');
}
}

// ----- Effects -----

useEffect(() => {
  fetchMovies();
}, []); // initial load

// ----- Handlers -----

function handleApplyFilters(event) {
  event.preventDefault();
  fetchMovies();
}

function handleSelectMovie(movie) {
  setSelectedMovie(movie);
  fetchMovieByld(movie.id); // to use /movies/:id API
  fetchReviewsByMovield(movie.id); // to use /reviews/:movield API
}

// ----- Render -----

return (
  <div>
    <h1>Movies & Reviews</h1>
```

```
/* Create Movie */
<section>
  <h2>Add New Movie</h2>
  <form onSubmit={createMovie}>
    <div>
      <label>
        Title:{' '}
        <input
          type="text"
          value={newMovieTitle}
          onChange={(e) => setNewMovieTitle(e.target.value)}
          required
        />
      </label>
    </div>

    <div>
      <label>
        Genre:{' '}
        <input
          type="text"
          value={newMovieGenre}
          onChange={(e) => setNewMovieGenre(e.target.value)}
          placeholder="Action, Drama, etc."
        />
      </label>
    </div>

    <div>
      <label>
        Release Year:{' '}
        <input
          type="number"
          value={newMovieReleaseYear}
          onChange={(e) => setNewMovieReleaseYear(e.target.value)}
          placeholder="e.g. 2023"
        />
      </label>
    </div>

    <button type="submit">Create Movie</button>
  </form>
  {moviesError && <p>Error: {moviesError}</p>}
</section>
```

```
/* Filters & Sorting */
<section>
  <h2>Filter & Sort Movies</h2>
  <form onSubmit={handleApplyFilters}>
    <div>
      <label>
        Genre:{' '}
        <input
          type="text"
          value={filterGenre}
          onChange={(e) => setFilterGenre(e.target.value)}
          placeholder="Action"
        />
      </label>
    </div>

    <div>
      <label>
        Release Year:{' '}
        <input
          type="number"
          value={filterReleaseYear}
          onChange={(e) => setFilterReleaseYear(e.target.value)}
          placeholder="2023"
        />
      </label>
    </div>

    <div>
      <label>
        Sort By:{' '}
        <select
          value={sortBy}
          onChange={(e) => setSortBy(e.target.value)}
        >
          <option value="">Default (createdAt)</option>
          <option value="releaseYear">Release Year</option>
          <option value="rating">Average Rating</option>
        </select>
      </label>
    </div>

    <div>
```

```

<label>
  Sort Order:{' '}
  <select
    value={sortOrder}
    onChange={(e) => setSortOrder(e.target.value)}
  >
    <option value="ASC">ASC</option>
    <option value="DESC">DESC</option>
  </select>
</label>
</div>

<button type="submit">Apply Filters</button>
</form>
</section>

/* Movies List */
<section>
  <h2>Movies List</h2>
  {loadingMovies && <p>Loading movies...</p>}
  {!loadingMovies && movies.length === 0 && <p>No movies found.</p>}
  <ul>
    {movies.map((movie) => (
      <li key={movie.id}>
        <div>
          <strong>{movie.title}</strong>
        </div>
        <div>Genre: {movie.genre || 'N/A'}</div>
        <div>Release Year: {movie.releaseYear || 'N/A'}</div>
        <button onClick={() => handleSelectMovie(movie)}>
          View Details & Reviews
        </button>
      </li>
    ))}
  </ul>
</section>

/* Selected Movie Details & Reviews */
{selectedMovie && (
  <section>
    <h2>Movie Details</h2>
    <p>ID: {selectedMovie.id}</p>
    <p>Title: {selectedMovie.title}</p>
    <p>Genre: {selectedMovie.genre || 'N/A'}</p>
  </section>
)}

```

```
<p>Release Year: {selectedMovie.releaseYear || 'N/A'}</p>

/* Add Review */
<h3>Add Review for this Movie</h3>
<form onSubmit={createReview}>
  <div>
    <label>
      Reviewer:{' '}
      <input
        type="text"
        value={reviewReviewer}
        onChange={(e) => setReviewReviewer(e.target.value)}
        required
      />
    </label>
  </div>

  <div>
    <label>
      Rating (1-5):{' '}
      <input
        type="number"
        min="1"
        max="5"
        value={reviewRating}
        onChange={(e) => setReviewRating(e.target.value)}
        required
      />
    </label>
  </div>

  <div>
    <label>
      Comment:{' '}
      <textarea
        value={reviewComment}
        onChange={(e) => setReviewComment(e.target.value)}
        placeholder="Optional comment"
      />
    </label>
  </div>

  <button type="submit">Submit Review</button>
</form>
```

```

{reviewsError && <p>Error: {reviewsError}</p>}

/* Reviews List */
<h3>Reviews</h3>
{loadingReviews && <p>Loading reviews...</p>}
{!loadingReviews && reviews.length === 0 && (
  <p>No reviews for this movie yet.</p>
)}
<ul>
  {reviews.map((review) => (
    <li key={review.id}>
      <div>
        <strong>{review.reviewer}</strong> — Rating: {review.rating}
      </div>
      <div>Comment: {review.comment || 'No comment'}</div>
      <div>Created At: {review.createdAt}</div>
    </li>
  )))
</ul>
</section>
)
</div>
);
}

export default App;
...

```

4. What's Integrated?

This React app calls **all your backend APIs**:

- * `POST /movies` → Add movie (form at top)
- * `GET /movies` → List movies with filters & sorting
- * `GET /movies/:id` → Fetch single movie when “View Details & Reviews” clicked
- * `POST /reviews` → Add review for selected movie
- * `GET /reviews/:movield` → Fetch reviews for selected movie

No CSS, only plain HTML tags and JS logic.
