**Programme : MCA**                                                      **Max Marks:60**

**Course Code : MCA172**                                          **Time: 2 Hrs**

**WEB STACK DEVELOPMENT**

1. Access the JokesAPI to fetch random Jokes. Create a web page (HTML/CSS) to display the Jokes. Use JavaScript to make API requests to the JokesAPI. Display the random jokes on the web page.                                                       **(20 Marks)**
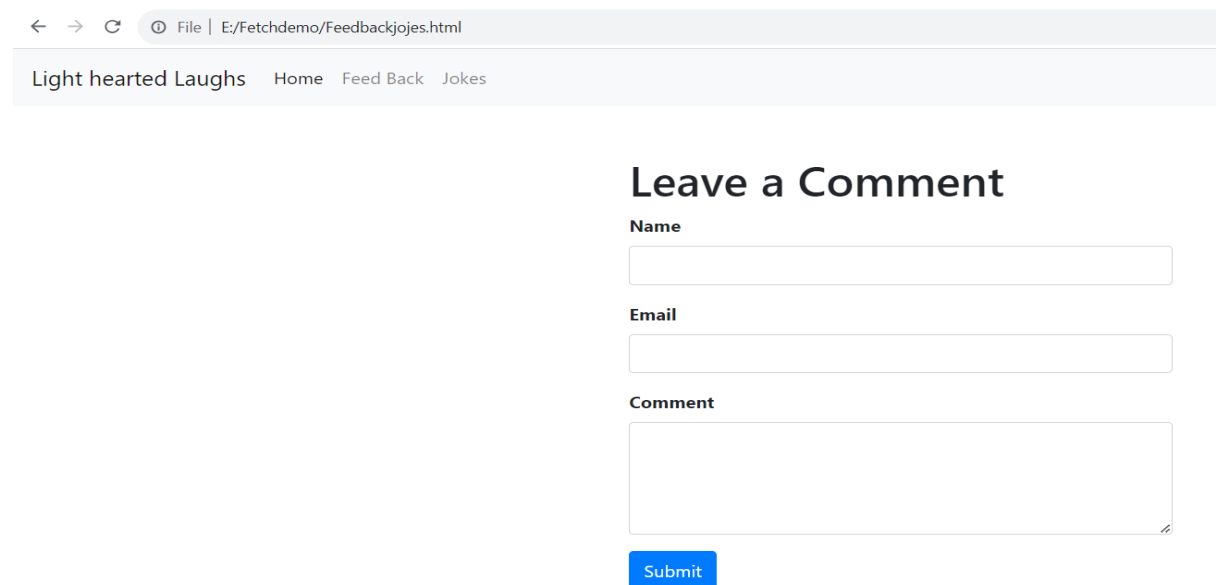
   v2.jokeapi.dev/joke/Any?blacklistFlags=nsfw,religious,political,racist,sexist, explicit

   a) Open jokes.html in a web browser. You should see the "Fetch Joke" button and an initial joke displayed. Clicking the button should fetch and display new jokes.

**b) Feedback Form with Validations** **(10 Marks)**



c. XML : **(10 Marks)**

You are tasked with creating an XML schema, XML data, and an XSLT stylesheet to manage and display jokes details including category and jokes. Follow these steps:

**XML Schema (XSD):** Write an XML schema (XSD) that defines the structure of the XML data. Ensure it enforces the correct data types and elements for category and jokes. Validate that the schema is correct.

**XML Data:** Create an XML document adhering to the schema you defined in step 1. Populate it with data for at least thirty categories and jokes

**XSLT Stylesheet:** Develop an XSLT stylesheet that transforms the XML data into an HTML table. Each row of the table should represent a jokes detail with columns for category and jokes.

**Validation:** Use the schema created in step 1 to validate the XML data. Ensure that it adheres to the defined structure and data types. If there are any validation errors, provide details on how to correct them.

**Transformation:** Apply the XSLT stylesheet to the validated XML data to generate an HTML table. Each row of the table should display the joke details.

**Display HTML Table:** Share the HTML table generated from the XML transformation.

## Jokes Table

| Category | Jokes |
| --- | --- |
| Miscellaneous | Why don't scientists trust atoms? Because they make up everything! |
| Miscellaneous | Parallel lines have so much in common. It's a shame they'll never meet. |
| Miscellaneous | I used to play piano by ear, but now I use my hands. |
| Miscellaneous | Did you hear about the mathematician who's afraid of negative numbers? He'll stop at nothing to avoid them. |
| Miscellaneous | What do you call a fish with no eyes? Fsh. |
| Miscellaneous | I'm on a seafood diet. I see food, and I eat it. |
| Miscellaneous | Why did the scarecrow win an award? Because he was outstanding in his field! |

Category: Programming
Joke: Why don't scientists trust atoms? Because they make up everything!
Category: Animal Crossing
Joke: Parallel lines have so much in common. It's a shame they'll never meet.
Category: Religion
Joke: I used to play piano by ear, but now I use my hands.
Category: Political
Joke: Did you hear about the mathematician who's afraid of negative numbers? He'll stop at nothing to avoid them.
Category: Food
Joke: What do you call a fish with no eyes? Fsh.
Category: Geography
Joke: I'm on a seafood diet. I see food, and I eat it.
Category: Celebrity
Joke: Why did the scarecrow win an award? Because he was outstanding in his field!
Category: Spooky
Joke: What's orange and sounds like a parrot? A carrot.
Category: Miscellaneous
Joke: How do you organize a space party? You "planet"!
Category: Math Movies
Joke: How does a penguin build its house? Igloos it together!
Category: Miscellaneous
Joke: Why did the bicycle fall over? Because it was two-tired.
Category: Sports Movies

Joke: I'm reading a book on anti-gravity. It's impossible to put down!
Category: History Movies
Joke: What did the grape say when it got stepped on? Nothing, it just let out a little whine.
Category: Music Movies
Joke: Want to hear a construction joke? Sorry, I'm still building it.
Category: Pokemon
Joke: What do you call a snowman with a six-pack? An abdominal snowman.
Category: Animal Movies
Joke: Parallel lines have so much in common. It's a shame they'll never meet.
Category: Christmas Movies
Joke: I used to play piano by ear, but now I use my hands.
Category: Science Movies
Joke: Did you hear about the mathematician who's afraid of negative numbers? He'll stop at nothing to avoid them.
Category: Science
Joke: What do you call a fish with no eyes? Fsh.
Category: New Year
Joke: I'm on a seafood diet. I see food, and I eat it.
Category: Halloween
Joke: Why did the scarecrow win an award? Because he was outstanding in his field!
Category: Miscellaneous
Joke: What's orange and sounds like a parrot? A carrot.
Category: Valentine's Day
Joke: How do you organize a space party? You "planet"!
Category: Miscellaneous
Joke: How does a penguin build its house? Igloos it together!
Category: Math
Joke: Why did the bicycle fall over? Because it was two-tired.
Category: Miscellaneous
Joke: I'm reading a book on anti-gravity. It's impossible to put down!
Category: Christmas
Joke: What did the grape say when it got stepped on? Nothing, it just let out a little whine.
Category: Miscellaneous
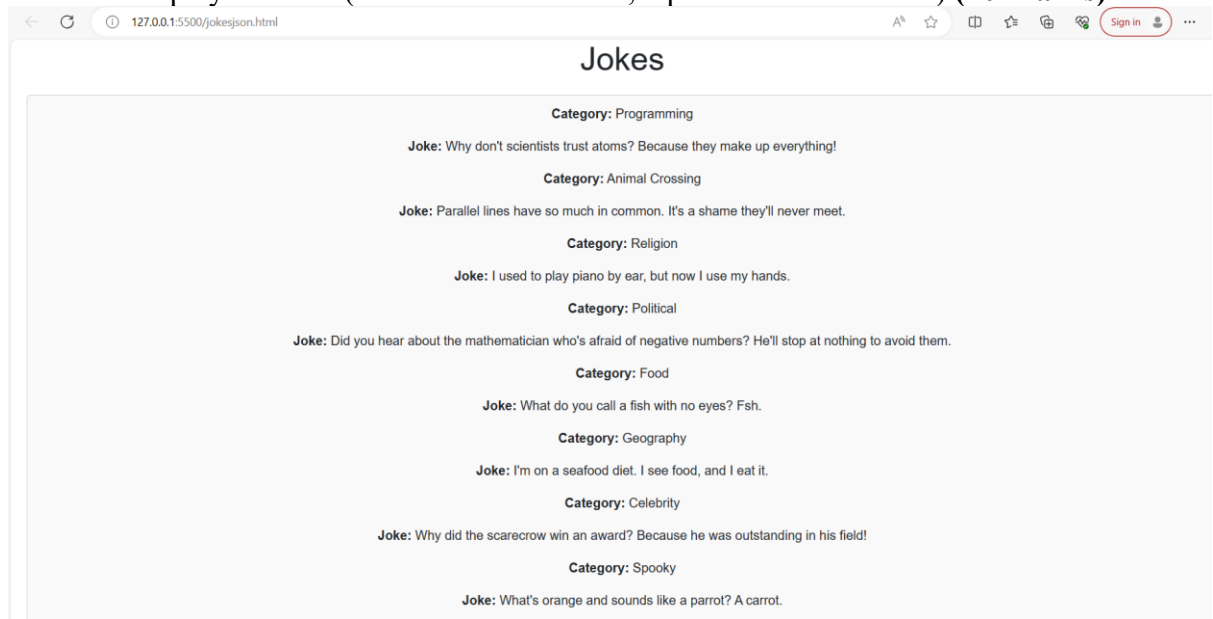Joke: Want to hear a construction joke? Sorry, I'm still building it.
Category: Dark
Joke: What do you call a snowman with a six-pack? An abdominal snowman.
Category: Miscellaneous
Joke: Why don't scientists trust atoms? Because they make up everything!

d) Create a jokes.json file with the above jokes (Minimum 10). Fetch the jokes.json from local and display it          (To avoid CORS error, Open with Live Server) **(20 Marks)**



**File to be Uploaded in Google Classroom**
1. **Index.html**
2. **Feedback.html**
3. **XSLT (Tranformed html file)**
4. **xsd file**
5. **xml file**
6. **xslt file**
7. **Python files (Validator and Transforming)**
8. **jokes.json file**
9. **script files**
10. **css files**