


API Schema Validation in Postman - QA Learning Summary

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1. Introduction

This document summarizes the learning and practical steps taken to perform **API schema validation using Postman**. It includes generating the schema, implementing validation scripts, and interpreting test results for QA purposes.

2. Steps Covered

2.1 API Used

- **Endpoint Tested:** <https://jsonplaceholder.typicode.com/posts>
- **Method:** GET

2.2 Schema Generation

- We generated a schema for validating the API response using JSON structure.
- Example schema:

javascript

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```
const schema = {  
  type: "object",  
  properties: {  
    userId: { type: "number" },  
    id: { type: "number" },  
    title: { type: "string" },  
    body: { type: "string" }  
  },  
  required: ["userId", "id", "title", "body"]  
};
```

2.3 Postman Test Script



Added to the **Tests** tab in Postman:

javascript

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```
pm.test("Validate each item in array", () => {  
  const jsonData = pm.response.json();  
  jsonData.forEach(item => {  
    pm.expect(tv4.validate(item, schema)).to.be.true;  
  });  
});
```

2.4 Validation Result

- Status:  **200 OK**
 - Result:  **All items matched the schema**
 - Screenshot proof was captured.
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3. QA Responsibilities After Schema Generation

3.1 If Schema Test Passes

- Report: "Schema validation passed. API response is as expected."
- Include:
 - Endpoint URL
 - Validation type (Schema)
 - Tool used (Postman + tv4)
 - Response time (optional)
 - Screenshot of passed result


Example Report:

vbnet

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GET /posts

Status: 200 OK

Schema Validation:  Passed

Tool: Postman (tv4)

3.2 If Schema Test Fails

- Check "Test Results" for failure location.
- Compare actual vs expected structure.
- Inspect “Body” tab in Postman.
- Update schema if it’s outdated — or raise a bug if API has an issue.
- Example bug report:

yaml

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Schema validation failed at item[3].title — Expected: string, Received: null

4. Interview Tip

If interviewer asks:

"What if schema validation fails?"

 **Answer:**

"I will inspect the failed response part, compare it with the expected schema, and raise a bug with proper details: endpoint, failure reason, expected vs actual data, and attach Postman screenshots."

Schema Generator : <https://www.liquid-technologies.com/online-json-to-schema-converter>