

JSON: Solutions

Valid or Invalid?

For each of the files below, indicate if it contains a single valid JSON object. If the object is invalid, indicate why and/or make changes to the object so that it is valid.

1. { key: value }

Solution: INVALID - strings need to be in double quotations

2. { "value": "key" }

Solution: VALID

3. { 'key': 'value' }

Solution: INVALID - strings need to be in double quotations

4. {
 "age": 7,
 "grade": 2,
 "teacher": "Ms. Chan",
 "friends": ["Bill", "Bob", "Jack", "Jo"]
}

Solution: VALID

5. { ["Bill", "Bob", "Jack", "Jo"]}

Solution: INVALID: objects can only have key and value pairs not arrays

6. {
 "address": {
 "city": "Toronto",
 "number": 40,
 "street": "St. George"
 }
}

Solution: VALID

Consider this valid JSON schema:

```
{  "description": "recipe",
  "type": "object",
  "properties": {
    "ingredients": {
      "type": "array",
      "items": {
        "anyOf": [
          { "type": "object" },
          { "type": "string" }
        ]
      }
    },
    "steps": { "type": "string" },
    "oven temp": { "type": "number" }
  },
  "required": ["ingredients"],
  "additionalProperties": false
}
```

1. Write a small recipe that would validate against it.

Here is a minimal recipe: {"ingredients": [{}]}

Here is another: {"ingredients": ["nothing"]}

2. What elements must be in every recipe and what are their types?

Solution: ingredients: an array where each element is either an object or a string

3. Consider this recipe.

```
{"ingredients": ["sugar", "butter", "flour"],
"steps": ["mix","cut","bake","eat"],
"oven temp": 350,
"title": "shortbread"}
```

- (a) Is it valid JSON? Circle one YES NO

If you answered no, make changes on the recipe to fix it.

Solution: It is valid JSON.

- (b) Does it validate against the schema above? Circle one YES NO

If you answered no, make changes on the schema so that both this recipe and your own recipe will validate.

Solution: It does not validate because steps is an array not a string and "title" is not allowed. You could add "title" as a property or change additionalProperties to be true. You also need to change the type of steps to be an array of strings.