

## Original Bolt Prompt

None

We are going to build a tool that is a quiz generator. This tool is for teachers and will allow them to create a quiz quickly on any topic. It can be math problems, it can be social studies, or anything else. The answer spots will all be text, so no multiple choice or true false here.

We will have a few fields that it will request and two options - the options are either or because option 2 would be duplicative of option 1.

Option 1 is based on user selections. These are manual inputs

Subject (dropdown, required)

Grade (dropdown, optional)

# of problems (text field, numbers only, required)

Area of focus (text field, required)

Option 2 - this is the feature where we allow you to upload a lesson plan and have the quiz be generated off of that. It should only accept PDF, PNG, and JPG/JPEG

Lesson plan upload (required)

We also need a slider of difficulty, with the selections of easy moderate or challenging. This will exist for either option because the difficulty is relevant in either case

There will be a generate button at the bottom. The generate button will then trigger AI to go make a request

Then, there will be a screen that the quiz is being built (this is while we wait for the AI to return the response). For the prototype, let's just simulate a 5 second response time.

Then, when the response is returned, we will show the result on the screen and there will be a share/export button which will trigger a download of the content in pdf form. Each quiz question will have a point value associated with it.

Prototype URL: <https://quiz-generator-tool-3njz.bolt.host>

Github: <https://github.com/andykettervt/ai-quiz-generator>

## Prompt & Response Format:

This prompt is for option 1, the inputs - you can see in the system prompt the various inputs from the form

None

```
import OpenAI from "openai";

const openai = new OpenAI({
  apiKey: process.env.OPENAI_API_KEY,
});

const response = await openai.responses.create({
  model: "gpt-4.1-mini",
  input: [
    {
      "role": "system",
      "content": [
        {
          "type": "input_text",
          "text": "You are a quiz creator tool for teachers. The quiz you
generate will be used to test students on particular material. Please make a
quiz that is appropriate for the following use case\n\nsubject: algebra\ngrade:
10th grade\nnumber of problems: 10\ntopic of focus: quadratic
equations\ndifficulty level: moderate\n\nReturn the JSON schema only"
        }
      ]
    },
    {
      "id": "msg_689e38f0ef1c81a09d37c487cd9cd92a05a074ed732dfd58",
      "role": "assistant",
      "content": [
        {
          "type": "output_text",
          "text": "{\n  \"questions\": [\n    {\n      \"question\": \"Solve
the quadratic equation: x^2 - 5x + 6 = 0\"\n    },\n    {\n      \"question\":
\"Find the roots of the equation 2x^2 + 3x - 2 = 0.\"\n    },\n    {\n
      \"question\": \"Determine the vertex of the parabola given by y = x^2 - 4x +
1.\"\n    },\n    {\n      \"question\": \"If the quadratic equation x^2 + bx +
16 = 0 has equal roots, find the value of b.\"\n    },\n    {\n
      \"question\": \"Solve the quadratic equation 3x^2 - 12x + 9 = 0.\"\n    },\n
    {\n      \"question\": \"Find the sum and product of the roots of the equation
4x^2 - 7x + 3 = 0.\"\n    },\n    {\n      \"question\": \"Write the quadratic
```

```

equation whose roots are 3 and -5.\n    },\n    {\n        \"question\":\n        \"Determine the axis of symmetry for the parabola  $y = 2x^2 + 8x + 5$ .\"\n    },\n    {\n        \"question\": \"If one root of the equation  $x^2 - 6x + k = 0$ \nis 2, find the value of k.\"\n    },\n    {\n        \"question\": \"Calculate\nthe discriminant of the equation  $5x^2 + 2x + 1 = 0$  and interpret its\nmeaning.\"\n    }\n  ]\n}\n],\ntext: {\n  \"format\": {\n    \"type\": \"json_schema\",\n    \"name\": \"quiz_questions_array\",\n    \"strict\": true,\n    \"schema\": {\n      \"type\": \"object\",\n      \"properties\": {\n        \"questions\": {\n          \"type\": \"array\",\n          \"description\": \"An array of quiz questions.\",\n          \"items\": {\n            \"type\": \"object\",\n            \"properties\": {\n              \"question\": {\n                \"type\": \"string\",\n                \"description\": \"The quiz question to be answered.\"\n              }\n            },\n            \"required\": [\n              \"question\"\n            ],\n            \"additionalProperties\": false\n          }\n        }\n      },\n      \"required\": [\n        \"questions\"\n      ],\n      \"additionalProperties\": false\n    }\n  },\n  reasoning: {},

```

```

tools: [],
temperature: 1,
max_output_tokens: 2048,
top_p: 1,
store: true
});

```

Second option, PDF upload instead which has fewer variables and the uploaded data

None

```

const response = await openai.responses.create({
  model: "gpt-4.1-mini",
  input: [
    {
      "role": "system",
      "content": [
        {
          "type": "input_text",
          "text": "You are a quiz creator tool for teachers. The
quiz you generate will be used to test students on particular
material. Please make a quiz that is based off of the attached
lesson plan. Also ensure the quiz meets the following
guidelines:\n\nNumber of problems: 5\nDifficulty Level:
Easy\n\nReturn the JSON schema only"
        }
      ]
    },
    {
      "role": "user",
      "content": [
        {
          "type": "input_file",
          "filename": "lesson-plan.pdf",

```

```

        "file_data":

],
  text: {
    "format": {
      "type": "json_schema",
      "name": "quiz_questions_array",
      "strict": true,
      "schema": {
        "type": "object",
        "properties": {
          "questions": {
            "type": "array",
            "description": "An array of quiz questions.",
            "items": {
              "type": "object",
              "properties": {
                "question": {
                  "type": "string",
                  "description": "The quiz question to be
answered."
                }
              },
              "required": [
                "question"
              ],
              "additionalProperties": false
            }
          },
          "required": [
            "questions"
          ],
          "additionalProperties": false
        }
      }
    }
  },
  "required": [
    "questions"
  ],
  "additionalProperties": false
}

```

```
    }  
  },  
  reasoning: {},  
  tools: [],  
  temperature: 1,  
  max_output_tokens: 2048,  
  top_p: 1,  
  store: true  
});
```