

TECHFEST 2020-21

SMART UI

TASK

Generate a Json file(output.json) from the screenshot of the wireframe. The file should contain the details of various elements used in the webpage.

PROBLEM STATEMENT

- Participants have to develop a **code which generates a json file** showing various elements on the image along with their position and corresponding label. An example of that is shown below -

Pre-tax Assets

ABC LTD 401 (k)
Traditional 401(k)

* Required Fields

Owner	Managed	Account Value	Total Contribution
John	<input checked="" type="checkbox"/>	\$ 1000	\$ 7000

Limited Income Income Account

\$ 50,000

Pre-tax Calculation

10%

Start Year	End Year
2013	2019

Employer Contribution

Matches employee Contribution 75% Of the first 7%

\$ 2,625 \$1,500

0% Contribution

10% Contribution

Roth Assets

Boker IRA	Managed	Account Value	Contribution Amount
Roth IRA	<input type="checkbox"/>	\$ 50000	\$ 200/Year

```
[
  {
    "element": "text",
    "x": 100,
    "y": 20,
    "width": 100,
    "height": 40,
    "properties": {
      "text": "Pre-Tax Assets",
      "font-size": 20,
      "font-color": "#333"
    }
  },
  {
    "element": "div",
    "x": 100,
    "y": 20,
    "width": 100,
    "height": 40,
    "properties": {
      "background-color": "white",
      "padding": 15
    }
  },
  {
    "element": "icon",
    "x": 100,
    "y": 20,
    "width": 28,
    "height": 28,
    "properties": {
      "color": "#333",
      "image": "triangle-down"
    }
  },
  {
    "element": "text",
    "x": 100,
    "y": 20,
    "width": 100,
    "height": 40,
    "properties": {
      "text": "ABC LTD 401(k)",
      "font-size": 24,
      "font-color": "#222",
      "font-weight": "bold"
    }
  }
]
```

Note - This text file contains only some extracted elements but you have to extract maximum elements possible from the image.

- You have to develop your model on the given training data which will then be tested on the test data by the organizers.
The training data could be found at this link - [Training Data](#)
- The solution could be built in **any language**. There is no restriction on that for the participants.
- **No commercial product/tool** can be used by participants for the competition. Any student found doing so would be disqualified from the competition.

JUDGING CRITERIA

The models will be tested on the following criterias -

- Least variance in the X/Y coordinates (from top left corner) of the widgets identified.
- It is desired that the widget identification should be greater than 70%.
- Fonts / Colours of Widgets should be with in Tolerance
- There should be a mechanism for rendering , so candidates should write a simple tool to render the HTML output as a screen.
- Any JavaScript framework based webpage code like Vue , Angular, React or jQuery generated as an output would get **bonus points**.

REGISTRATION AND SUBMISSION

The Participants have to register on the official Techfest Website and fill all the necessary details: www.techfest.org -> Competitions -> Smart UI -> Explore More -> Register

The code should be uploaded on your github account along with a **readme file** explaining the deployment and run steps. The link to that repository should be shared via mail at smartui@techfest.org with the subject Smart UI - Team ID (For example - Smart UI - SU1234)

TIMELINE

The link to the github repository must be shared via mail latest by **5 January, 2021**.

RULES

1. No commercial product/tool should be used by the participants.
2. Every team has to register online on the official Techfest website for the competition.
3. A Team ID will be allocated to the team on registration which shall be used for future references.
4. Originality of work is essential and the application will be disqualified, if found otherwise.
5. Decisions of the **Expert Committee/organizers will be final and binding**. Canvassing in any form will lead to disqualification.
6. Note that at any point of time the latest information will be that which is on the website.
However, registered participants will be informed through mail about any changes.

IMPORTANT NOTE

Intellectual Property Rights

The IP rights in the content(s) of the submitted entries and related prototype shall be assigned to **Morningstar** without any further consideration. They shall have the rights to implement the solution submitted in the entries and prototype on appropriate level.

TEAM SPECIFICATION and ELIGIBILITY

- A team may consist of a maximum of **4 participants**. Students from different educational institutions can form a team.
- All students and Morningstar employees with a valid Identity Card of their respected institutes/organization are eligible for competition.

CERTIFICATE POLICY AND PRIZES

- The Prize money will be awarded to Top 5 Winners via NEFT and will be processed within 30 working days after receiving the Prize Money from Sponsors.
- E-certificate of Participation will be given to Top 60% teams (except top 3 winners).
- E-certificate of Excellence will be given to Top 3 teams.

The Winner will have to mail the following information (immediately after the announcement of results) to shubhamgautam@techfest.org

Subject:

Smart UI, team id- your position (example: Smart UI, SU1234 – 1st position)

Body of mail:

1. Account Holder's Name
2. Account Number
3. Bank name and Branch name.
4. IFSC Code