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1. GENERAL INSTRUCTIONS

- Please carefully read all the pages of the assignment.
- You can seek help from the Internet or anyone for learning and reference purpose.
- Do not copy the content as it is, use your genuineness and creativity.
- Any kind of plagiarism is highly prohibited.
- At any time if you need any clarifications, please do not hesitate to contact (using same email you received this assignment).
- Completed assignment must be committed to GitHub repo at regular intervals to show the incremental working history.
- Above assignment repo URL must be shared with public access through the email in which you received this assignment.
- Daily work progress needs to be send everyday by email in which you received this assignment. **THIS IS IMPORTANT**

It must follow the following format.

For example:

subject: [Assignment update-day-1][YOUR_NAME]

Hello Shan,

I have completed research on the following topics

- Please note that Daily work progress report sending is more important than the actual work progress.

2. ASSIGNMENT EXPECTATIONS

- Should solved all four requirements.
- Should able to show a demo of the working solution locally by sharing a screen (discussion will be scheduled after assignment submission).
- Should be able to articulate their code logic and design clearly.
- Should know every bit of their source code.
- Should be able to debug the code by keeping breakpoints.
- Should be able to demonstrate source code versioning history in Github.



3. PROBLEM STATEMENT

- Develop web based front-end for the following RED-GREEN memory game
 - Refer the requirements section as the game self explanatory.
- **Technology preference**
 - Use any one of the following technology
 - React.js + HTML + CSS
 - Plain Vanilla JS + HTML + CSS
 - Angular + HTML + CSS
 - Vue.js + HTML + CSS
- For API Mocking, JSON-server or any other library of your choice.

3. PROBLEM STATEMENT – JSON format

```
1- [  
2- {  
3-   "type": "city",  
4-   "name": "chennai",  
5-   "id": "1"  
6- },  
7- {  
8-   "type": "country",  
9-   "name": "Australia",  
10-  "id": "2"  
11- },  
12- {  
13-   "type": "city",  
14-   "name": "London",  
15-   "id": "3"  
16- },  
17- {  
18-   "type": "country",  
19-   "name": "France",  
20-   "id": "4"  
21- },  
22- {  
23-   "type": "country",  
24-   "name": "USA",  
25-   "id": "5"  
26- },  
27- {  
28-   "type": "city",  
29-   "name": "Melbourne",  
30-   "id": "6"  
31- },  
32- {  
33-   "type": "city",  
34-   "name": "Toronto",  
35-   "id": "7"  
36- },  
37- {  
38-   "type": "country",  
39-   "name": "Sweden",  
40-   "id": "8"  
41- },  
]
```

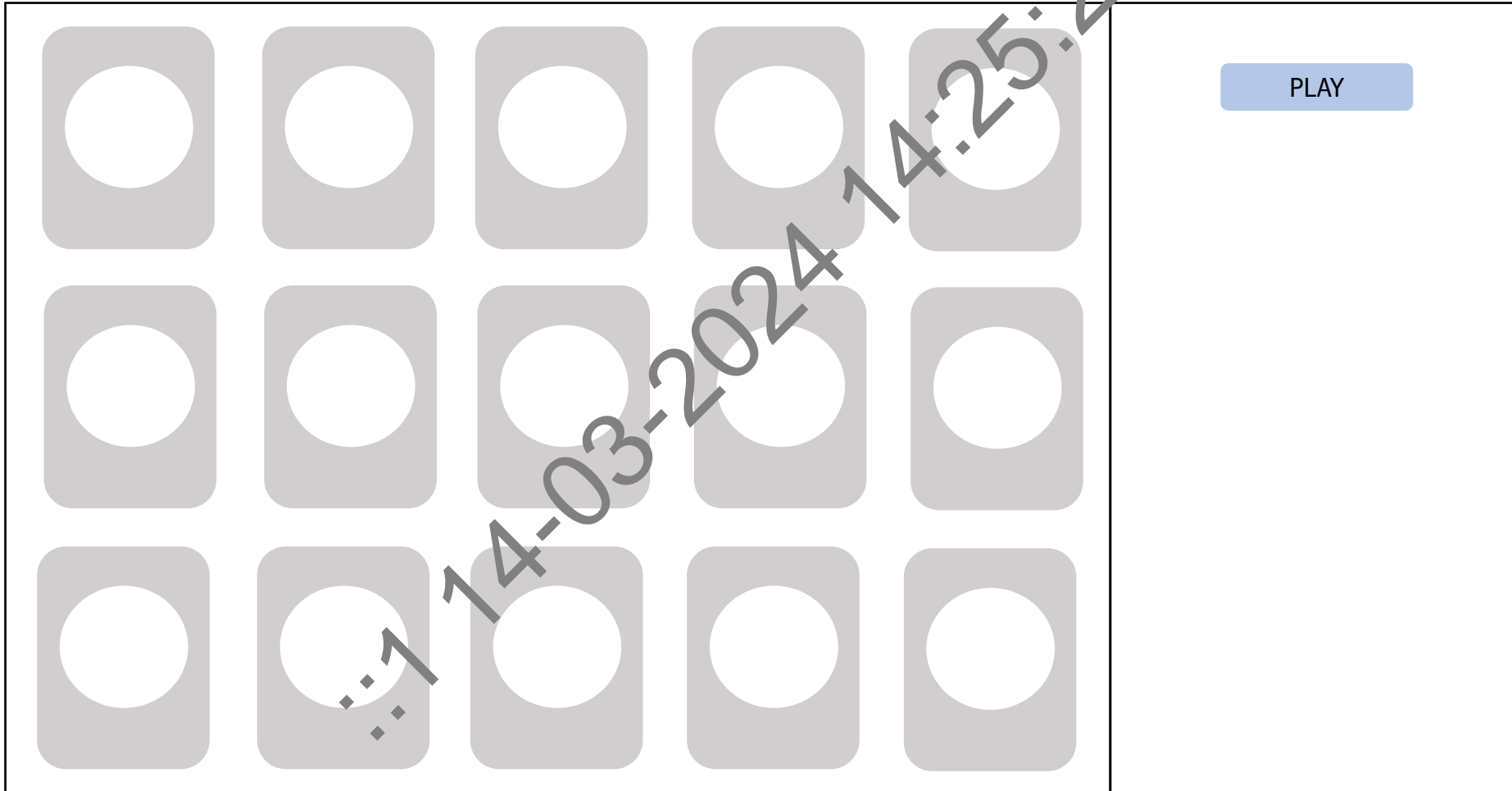
3. PROBLEM STATEMENT – Card Type with Icons

Card UX	Card Type name	Card Icon Name from MaterialUI. Here given for the reference purpose only. You are free to use any UI library for icons. And also even Icons itself you are free to use anything but ensure icons are unique for each nodes.
	City	Location City
	Country	Flag

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Requirement -1

By default, application must show the below screen, 5*3 matrix



RESTRICTED

8

User must see and remember the colour of city and country

4. Set the timer for 3 seconds with UI as shown below



RESTRICTED

RESTRICTED

9

User must see and remember the colour of city and country

3. Set the timer for 3 seconds with UI as shown below



RESTRICTED

RESTRICTED

10

User must see with 3 seconds and recollect later

3. Set the timer for 3 seconds with UI as shown below

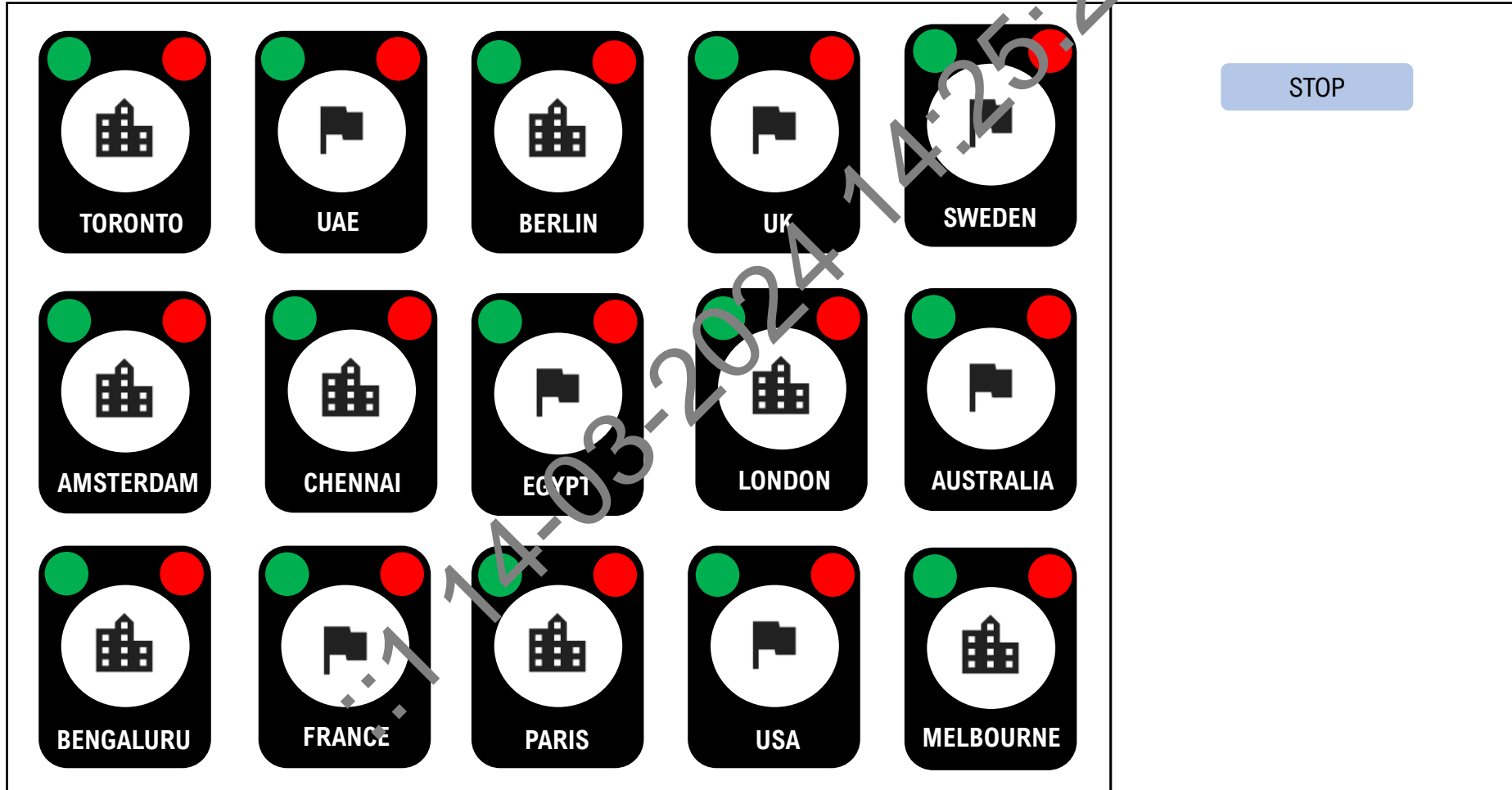


RESTRICTED

RESTRICTED

11

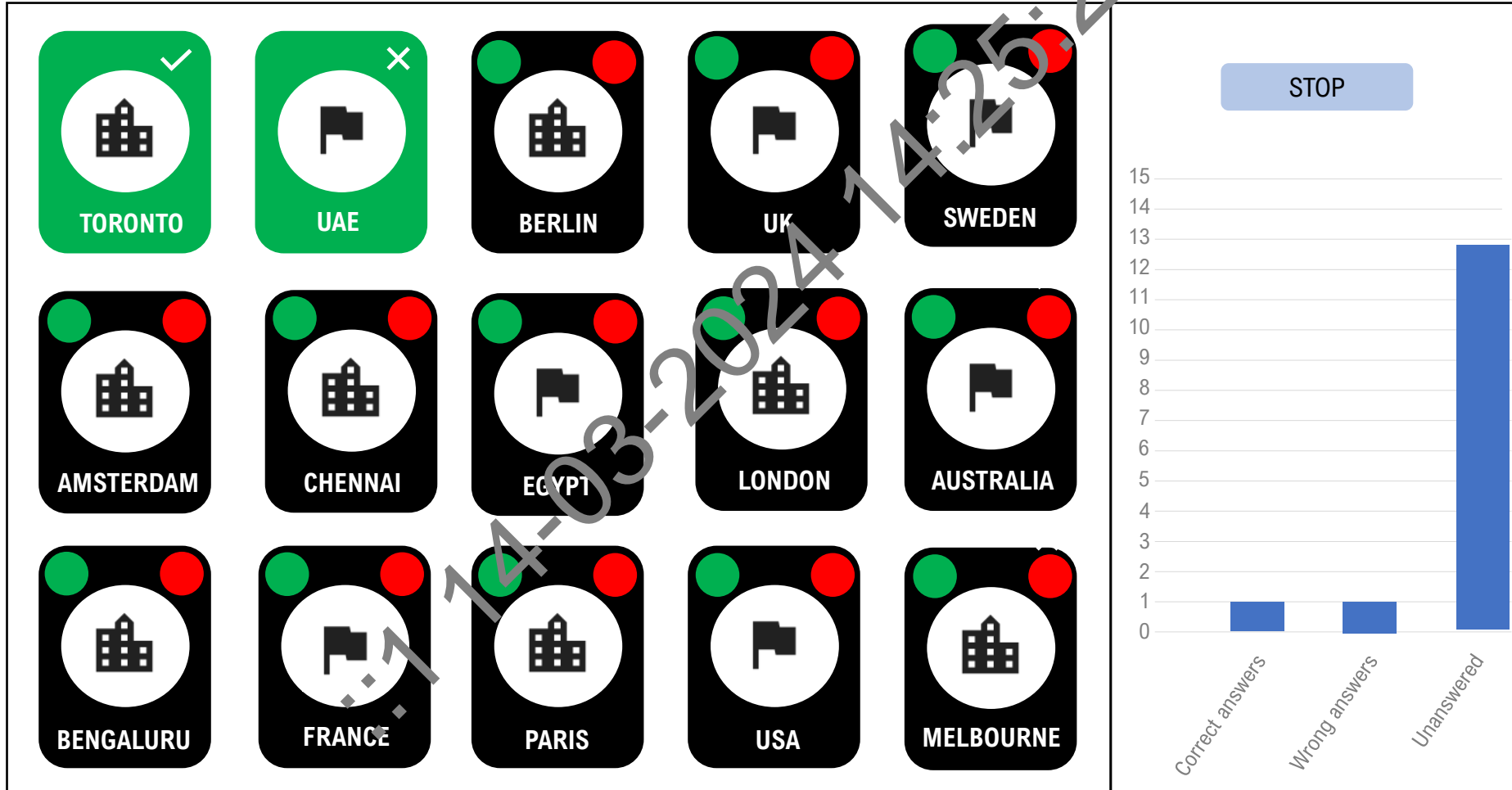
After 3 seconds, UI must be as shown below. All the text position must shuffled and the card colour must be changed to black.



RESTRICTED

RESTRICTED

12



RESTRICTED

RESTRICTED

13



RESTRICTED

RESTRICTED

14

Requirement -5

Create your own generic data and ensure all requirements are working

This is optional requirement, work on this one only if you have successfully completed all the four requirements.

**RESTRICTED**

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STAFF EXAM CONF : OCT 2023

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Background

1. Army Commanders' Conference (ACC) is an apex-level biannual event which is an institutional platform for conceptual level deliberations, culminating in making important policy decisions for the Indian Army. The first ACC for the year 2023 is scheduled from 17 to 21 April 2023. For the first time, the ACC is being conducted in Hybrid format exploiting available technology for secure communication, wherein Army Commanders and other senior functionaries will meet virtually on the first day and then travel to Delhi for balance physical meetings on matters which require detailed deliberations.

2. On the first-day of the conference, agenda points sponsored by various Command Headquarters will be discussed, followed by an update from Commander-in-Chief Andaman and Nicobar Command and sessions by Principal Staff Officers of the Army Headquarters.

Proposal

3. Invalid Characters Accepted: Set validation against a pre defines character. In its present state malicious inputs like spl character is being allowed for storage within the database. Thus it is recom that data input must be restd ro the char set of alphabets and numeric only.

Recommendation

4. Army Commanders' Conference (ACC) is an apex-level biannual event which is an institutional platform for conceptual level deliberations, culminating in making important policy decisions for the Indian Army. The first ACC for the year 2023 is scheduled from 17 to 21 April 2023. For the first time, the ACC is being conducted in Hybrid format exploiting available technology for secure communication, wherein Army Commanders and other senior functionaries will meet virtually on the first day and then travel to Delhi for balance physical meetings on matters which require detailed deliberations.

Paste Ref/Status & Timeline (if applicable)

5. On the first-day of the conference, agenda points sponsored by various Command Headquarters will be discussed, followed by an update from Commander-in-Chief Andaman and Nicobar Command and sessions by Principal Staff Officers of the Army Headquarters. The forum will also review the progress on the activities charted out as part of 'Year of Transformation-2023' along with progress on Agnipath

6. The forum will also review the progress on the activities charted out as part of 'Year of Transformation-2023' along with progress on Agnipath Scheme, digitisation & automation initiatives, Combat Engineers tasks, work aspects and budget management.

7. The apex leadership will also brainstorm current / emerging security scenario and review operational preparedness of Indian Army. The Hon'ble RM is scheduled to address the conference on 19 April 2023, where he will also review an equipment display focussing on niche technology, innovation, solutions for surveillance, Artificial Intelligence, Training, Robotics, Virtual Reality, Operational Logistics etc. The senior officers will also be addressed by the Chief of Defence Staff, Chief of the Naval Staff and the Chief of the Air Staff.

8. A talk on future contours of Indo China relations by Mr Vijay Gokhale, former Ambassador to China is also planned during the conference. Data Transmitted in Clear: It is observed that data is being transmitted in clear over an unencrypted channel. The user data should always be transferred via an encrypted channel (HTTPS) to avoid being intercepted during transmission. It is thus, recommended that TLS based encryption be implemented within the web server/ application and all data transfer be encrypted.

9. Invalid Characters Accepted: Set validation against a pre defines character. In its present state malicious inputs like special character is being allowed for storage within the database. Thus it is recommended that data input must be restricted to the character set of alphabets and numeric only.

10. Army Commanders' Conference (ACC) is an apex-level biannual event which is an institutional platform for conceptual level deliberations, culminating in making important policy decisions for the Indian Army. The first ACC for the year 2023 is scheduled from 17 to 21 April 2023. For the first time, the ACC is being conducted in Hybrid format exploiting available technology for secure communication, wherein Army Commanders and other senior functionaries will meet virtually on the first day and then travel to Delhi for balance physical meetings on matters which require detailed deliberations.

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