Q1. Hide and Seek

The game hides three gifts (at random each time the game is loaded). Your task is to find the gifts.

Goal: Find the gifts in the fewest number of guesses. The game rates you according to your performance.

Setup: When the game is loaded, the gifts are hidden at random by the computer on the grid. Then the game asks you for your first guess.

How you play: The game will prompt for a guess, and you will type in the box as shown above and press "Guess" button. In response to your guess, you will either see the "Gift" or "Miss" in the corresponding grid location (refer figure above). When you find all the gifts, the game ends by displaying your rating. In case you find the danger icon (only one such icon is hidden in the grid, at random) the game will reset and all progress is lost.

The game will have three levels: 3x3 grid, 4x4 grid and 6x6 grid.

Focus on making the game visually attractive.

Q2. Create a website for CPU scheduling algorithms (FCFS, Priority Scheduling(non preemptive) and Priority Scheduling (Preemptive)). On clicking any algorithm, the page must display the working of the

algorithm and have a working model of it. For instance, for priority scheduling, the working model should take input from the user related to:

- Number of processes
- Time of arrival
- Burst time
- Priority
- What to calculate?

Then step-wise working of Priority scheduling algorithm (The Gantt chart at each unit time) should be displayed visually.

Q3. Create a website for Page replacement algorithms. On clicking any algorithm, the page must display the working of the algorithm and have a working model of it. For instance, for FIFO page replacement, the working model should take input from the user related to:

- Number of frames
- Page request order
- What to calculate (Page Hit or Page Miss)

Then step-wise working of the algorithm after each page being added into a frame should be displayed visually.

Q4. Create a website for Disk Scheduling algorithms. On clicking any algorithm, the page must display the working of the algorithm and have a working model of it. For instance, for FCFS, the working model should take input from the user related to:

- Order of request
- Current head position
- What to calculate?

Then step-wise working of the algorithm after each request should be displayed visually.

Q5. Create a website for CPU scheduling algorithms (Round Robin, Shortest Job First, Shortest Remaining Time First). On clicking any algorithm, the page must display the working of the algorithm and have a working model of it. For instance, for SRTF, the working model should take input from the user related to:

- Number of processes
- Time of arrival
- Burst time
- What to calculate?

Then step-wise working of SRTF scheduling algorithm (The Gantt chart at each unit time) should be displayed visually.

Q6. A University wants to create a Placement portal. Design the entire front end keeping in view the following requirement:

1. Student
   a. Registration
   b. Profile view
   c. View announcement
   d. Upcoming drives
   e. Drive registration
   f. Summary

2. Placement Officer
   a. List students
   b. Filter students
   c. Register students
   d. Create drives
   e. Announcement
   f. Blocking/unblocking student
   g. View drives
   h. Summary

Use dummy data to show in the interface. Make the interface interactive for the end user.

Q7.

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				MISS	

The game hides three gifts (at random each time the game is loaded). Your task is to find the gifts.

Goal: Find the gifts in the fewest number of guesses. The game rates you according to your performance.

Setup: When the game is loaded, the gifts are hidden at random by the computer on the grid. You click inside a square to take a guess.

How you play: The user clicks inside any square for a guess. The square flips to show what's hidden inside. In response to your guess, you will either see the "Gift" or "Miss" in the corresponding square. When you find all the gifts, the game ends by displaying your rating. In case you find the danger icon (only one such icon is hidden in the grid, at random) the game will reset and all progress is lost.

The game will have three levels: 3x3 grid, 4x4 grid and 6x6 grid.

Focus on making the game visually attractive.

Instructions

1. This assignment is a compulsory CA component.
2. The assignment is to be done on individual basis (no groups)
3. The assignment submission mode is **Online** only. Student has to upload the assignment on or before the last date on UMS only. No submission via e-mail or pen-drive or any media will be accepted.
4. Non-submission of assignment on UMS till the last date will result in **ZERO** marks.
5. The student is supposed to solve the assignment on his/her own. If it is discovered at any stage that the student has used unfair means like copying from peers or copy pasting the code taken from internet etc. **ZERO** marks will be awarded to the student.
6. The student who shares his assignment with other students (either in same section or different section) will also get **ZERO** marks.

Roll No.	Question	Roll No.	Question	Roll No.	Question	Roll No.	Question	Roll No.	Question
1	1	16	2	31	3	46	4	61	5
2	2	17	3	32	4	47	5	62	6
3	3	18	4	33	5	48	6	63	7
4	4	19	5	34	6	49	7	64	1
5	5	20	6	35	7	50	1	65	2
6	6	21	7	36	1	51	2	66	3
7	7	22	1	37	2	52	3	67	4
8	1	23	2	38	3	53	4	68	5
9	2	24	3	39	4	54	5	69	6
10	3	25	4	40	5	55	6	70	7
11	4	26	5	41	6	56	7	71	1
12	5	27	6	42	7	57	1	72	2
13	6	28	7	43	1	58	2		
14	7	29	1	44	2	59	3		
15	1	30	2	45	3	60	7		