

Cricket. In India, It's more of an emotion than a sport. In a country where star cricketers are considered as Gods by many, cricket surely means business and a lot of money. And Indian Premier League has a lion's share in it. There are a lot of online services which are already making huge money by offering live scores, statistics and live streaming.

Mission R&D Technologies is a leading mobile app development company, which is keen on encashing the IPL fever. They already own an Android and iOS app for IPL scores, but they want to open it up to web as well. But they are mobile centric and only have workforce which are full time mobile app developers. So they are actively looking for full stack web developers who can help them expand their product for the web as well. Instead of opting for a regular interview process, they have decided to conduct a Hack Day today to get the best talent in the city.

You are fresh out of college and actively looking for a full stack developer role. This is a golden chance for you all to prove your app development skills and score a job in one of the leading app development companies in the country. I am here on behalf of Mission R&D Technologies to help conduct the HackDay.

We want you to develop a responsive web app to show all the statistics of previous 12 seasons and also provide live score updates.

Keep these in mind..

- This is not a team project. Participation is individual.
- You could use any framework of your choice for both frontend and backend or you could not use anything at all (front end) and write in HTML and CSS.

- The entire task is divided into various levels so that you don't have to break your heads to decide where to start from.
- Try to make use of those templates you found on the internet over the last weekend. First priority comes to functionality and then comes beautiful UI. I would suggest you to do both, level by level. Trust me, it isn't hard, if you have a good template at hand. If you think you are spending more than usual time in beautifying UI, then leave it and try to implement as many features as possible.
- Your code should be efficient, concise and extendable. Assume that this should go to production as is.
- Add logs appropriately for us to debug.
- Use any persistent storage to save data as seen fit.
- Write neat and structural code. Focus on code reusability and efficiency as well
- You have complete freedom to make your design choices, we just want the app to look similar to what's described below. For example, you can use server side rendering / client side rendering. Write in react/angular/bootstrap/bulma or just use plain HTML/CSS etc.
- Go through all the feature list before building the app, so that you don't need to rewrite the majority of your code to add the next feature.

What will we provide you?

We will provide you with the following datasets -

- Match details of all the previous seasons of Indian Premier League.
- Ball to ball commentary of each match for all the seasons.

Don't expect the data to be consistent. For example, if you calculate the runs scored in each ball and total it, it may not match the total present in the match details. Stop worrying about accuracy. This data is only given for you to make it easy to design and populate some dummy data in your app to demonstrate its capabilities.

What should you deliver?

The entire day will resemble a real world software development cycle, that means you won't deliver the entire product at once. You need to code a basic working web app once and keep adding features to it, till you meet the specifications of the final app. We know that this involves a lot of process and design choices, so we are making it easier by dividing the entire specifications into various levels so that you can start the development right away. You have 2 days to show your progress to us. If we believe that you are making good progress then we will be offering you more time to complete the remaining part.

Where is the product specification?

Oh, here it is.

Level 1

- We are giving you the data in the form of CSV. Create appropriate schema in your database to store and use this data.
- Once the schema is created, import all the data into the database.
- Create a seasons page which will display a listview of all the matches played in a particular season. Provide an option to the user to move to various seasons. (Probably a drop

down menu with items from 2008 to 2019 and when the user selects a season, show him the matches played in that season).

- This is a summary page and should only contain details of each match like
 - Teams Played
 - Venue
 - Toss Result and Decision
 - Result
 - Player of the Match
- This should be your home page for now. It should display the latest season by default.

Level 2

- You need to design a page for an individual match. This page should display the following.
 - Teams playing the match. (You can pull the team logo from the internet if you want and display it in your UI)
 - Toss result and decision.
 - Winner details and margin
 - Man of the Match
 - Ball by ball list view with the result (runs scored / wicket taken on that ball)
- Add a "View Match Details" button in the seasons view for each match and upon clicking on it, display this match page with details of the match which was clicked by the user.

Level 3

- Paginate the seasons view to display 8 matches at maximum. (Provide previous and next buttons at the bottom of the list to navigate between 1-8, 9-16, 17-24 views etc)
- Add these details to the match page

- Top 3 run scorers (from both teams, so player name, team and runs are minimum fields required in that list)
 - Top 3 wicket takers (same as run scorers)
 - Extras conceded by each team (add it near the team score)
- Introduce tabs to the match page. 2 innings should be separated in each tab.

Level 4

- Introduce Premium accounts. The user should only see the match details in the seasons page and if the user is trying to access the match details page, introduce login. Basically you are trying to simulate a paid service experience here.
- Show them a registration page as well. All the users registered from here are considered as paid subscribers.
- The basic details of the user like name and picture, should be displayed on every page in your app on the top right.
- Give them an option to log out.
- Once the user is logged out, show a button to login in the place of user picture at the top right.

Level 5

- Introduce a points table page. Just like the seasons page, this page should be available per season and user should be able to navigate to different seasons from a drop down menu.
- Calculate the points from match details data and not from ball by ball details.
- Each match won will get 2 points and no result will give them 1 point each.
- Ignore Net Run Rate.
- Premium subscription not required.

Level 6

- Introduce a team home page. This page should show the details of all the matches the team played in each season.
- Probably a timeline of what happened in all 12 seasons will help. (Lost in leagues, reached the playoffs, runner up, champion etc)
- UI is left to your designing skills.
- Premium subscription not required.

Level 7 (Advanced)

- Create an IPL home page. Try to put links to all the pages created above in an interesting layout. For example - show latest season's points table, latest champion and details of the final match where they won etc. and then give links to move to their respective pages.

Level 8 (Advanced)

- Introduce an admin page where they can create new matches and add ball by ball commentary.
- Update all your previous pages to show that a match is now live.
- Match details page should be refreshed every few seconds to check if there is any update in the score.

Level 9 (Advanced)

- Introduce a statistics page. The design and implementation of this page is left to your creativity.
- You can show statistics such as top run scorers and top wicket takers in all seasons combined. Best strike rate. Most number of boundaries in a match. Most number of sixes by a batsman in all seasons combined. These are a few ideas. You can implement more such things.
- The agenda is to test your UI skills. Use templates liberally to generate charts, bar graphs etc to represent all these statistics in a pleasing way.
- Premium subscription required.

