**Publishis Sapient Use case based questions**

Please find below the case study for your reference. Please prepare the solution and code as well.

**Business problem:**

ABC Racing Company is experiencing a downfall in the people showing interest in their sport. They have decided to increase the fan fare, by revamping their digital presence. They would like to recruit and increase their fan base by reaching out to fans wherever they are.

They still want to connect to their ageing fan base and provide access to their content (like fixtures, top 5 racers etc.) across all digital platforms.

**The Opportunity:**

As a Experience Technologist, the responsibility is to define and build the next gen mobile/web experience platform for ABC Racing Company. The said opportunity is to spread mobile and responsive/adaptive design throughout the experience, starting with mobile web and progressively enhancing as devices have more capabilities, allowing for the contextual, personalized, fastest, richest experience for users of each platform.

The idea is to have all their content on a single page – which has a combination of data in the form of images, videos providing the option for the customers, to bookmark specific sections of the page.

Being a global company they would like to customize the site based on their customers geography and have a completely different set of colors for them.

The other key things to keep in mind are

1. ***Performance***– especially since the site is expected to have a lot of traffic and loads of content like high resolution race day pictures, videos with pre and post race interviews to name a few. It will also be accessed on mobile phones over 3g/4g network, so should be lighter and easier to loads on mobile phones and tablets.

2. ***Accessibility –***Since the site is to be accessed by all the fans of racing – it needs to support AAA – level of accessibility

3. ***Degrade gracefully –***there is a clear need to support browsers like IE7. The site needs to degrade gracefully on those browsers.

4. ***Scalability and Extensibility –***The solution should be scalable to support ever increasing user base and extensible to support additions of modules later and be able to scale up to support commerce/marketing integration for future requirements.

5. ***Analytics***– The Company wants to track users and their interactions on the site and thus enable analytics, which provides them with all relevant information to optimize the experience across all channels.

6. ***Offline Viewing –***The users should have the option to enable to view sections of the site made available for offline viewing.

**From a tech stand point**; please suggest what would be your recommendations on:

1. Architecture: How would you design and build the solution?

a. Elaborate Front-end Architecture (Logical with a view on Separation of concerns, Maintainability, Extensibility and other ilities) – **mandatory**

b. End-to-End architecture (with a view on integration with Server side) - **optional**

2. Infra architecture: recommendations for CI/Build processes, Unit testing, code coverage etc.

3. Performance strategy

4. Localization Needs – i18N etc.

5. Clearly identify tech stack and provide reasoning for each selection – Platforms, Frameworks, and Libraries etc.

6. Translate design direction into code sample

a. Code out a vertical which represents your design thinking in tangible (any functional piece with all the layers covered – could use mock integrations)

7. Identify team roles and skills to deliver such a work

**Innovation:**

Include at least one idea to build, which is unique/innovative in bringing fans back to sport (physical or virtual).

**Instructions:**

Please read through the requirements carefully, focus on technical details and architecture for a Digital solution, which performs across digital platforms.

Please be specific about any assumptions, recommendations and detail out Architectural choices.

Support your recommendations and choices with valid reasoning.

Please prepare a Document/Presentation with instructions on how to read any diagrams, code, plan etc. that you come up with to complete the case study.