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Milestone 1b – Software Engineer Role

**Frontend:** The user interface’s purpose is to allow for coaches and players to interact with the application and be able to sort videos by date, game, or any other topic available. The difference between the user interface for coaches and players is that coaches can see information about the players and upload the film. The players are only able to see the videos and the comments that go with them. The high-level functionality for this is allowing users to view videos, comments, and annotations and providing a profile and settings section. Specifically, for the coach, they will have the feature to upload the film, split it into sections and assign the videos to individual players. The coaches will also have a feature that allows them to view the players' information in terms of how much film they have watched and what exactly they watched. The video player itself will allow users to constantly play the videos and pause frame by frame. This will also allow for comments and annotations during the video.

**Interfaces Services:** The purpose of interface services is to handle the interaction between two different components and allow for them to communicate efficiently and effectively. For our project this would be an interface service between the user interface and the user authorization service that allows for registration and log in while verifying the users log in and information. Another interface service will be needed for the process of uploading and storing videos, the service will need to allow for communication and data transfer between the uploading component and the database component that will store all the videos uploaded by the coaches. Another interface will have to allow for the comment process and store these comments so that every time a video is played, these comments show up with that video and tagged with a specific time stamp that is the same for every coach and player that watches the video. The last need for an interface service would be for the coaches to assign the videos to each player receiving the videos assigned to them and allow their interface to adjust to the videos. This will also be responsible for associating players with their videos, tracking their progress, and updating them when they get updated videos.

**Server:** The purpose of servers in this project are to handle core application logic and handle requests from the user-side of the program. One example of this is the video assignment service that handles when a coach assigns videos to players, the server must handle the associations between the videos and players so that the logic is easily understood and communicated to the database and the user interface. This sounds like interface services because it is, however, the difference is that the server handles the actual logic while the interface services handle the communication. The server is where all the other aspects of the project are pulled together and made feasible for the project to succeed. The server handles the API (application programming interface) which defines the endpoints for the application to interact with. This provides the ground rules for how the client and server communicate, which would include the interface services. The server would also handle the notification process for when players receive videos to watch and for coaches when the players finish watching their film.

**Database:** There will be two major databases associated with this project, and they will be a user database and a video database. The user database purpose is to securely store information from each user's profile and any other user-related data. This will store the users' credentials, permissions, role, and profile data. The video database will store the uploaded videos and references to videos for all users on the application. This will store the video itself, the video comments, description, users that are associated, and it will manage the actual storage locations and paths of the video files.