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Computer Programming and Web Development

**1 Introduction**

For my senior project I plan on working to build a website about basketball. I will use visual studio code in order to program the website. This project is a website based around basketball where users will have the opportunity to learn about the game of basketball on a deeper level. Each page of the website will have a blend of images and information to appeal to the user. Each page will cover key points of each decade. I might need to incorporate subsections for certain eras as there might be more information that can’t be covered in the main key points of the page. I will also be incorporating statistical categories into each page. However, there will be certain statistical categories (such as steals, blocks, etc) that will not be able to be included in certain eras as those stats were not counted during certain periods of time. If there is speculation on a certain game that didn’t include stats, I will include resources like videos or articles that cover those games so the user can formulate their own opinion on the matter. I will try to limit how many of these controversial games I include on the website as I want the website to have more of an informational approach and not an opinionated take on basketball. As previously mentioned, each decade will have key sections that will go over important information regarding the decade. I will have to organize these key points with specific dates (I could use a number line in order to organize the information by date).

Configuring the layout for the pages will take time as there is a lot of information to cover across each of the decades. I will need to find layouts or templates that can present the information in the best possible way. This can help minimize the amount of information that could come off as overwhelming to the user. I will have my group partners help me to find and or create layouts to organize the information in the best way possible. One way I could do this is by using grids and columns in order to organize the page and the text. Text font, background color, etc will also be discussed in my group as we will determine what colors and text fonts go well together and that are appealing to the eyes of the user. To go along with that, I could incorporate a dark mode theme, but I am currently unsure whether or not to do that at the current moment.

I do have a few ideas of how to start the website. I was thinking that the best way to start the webpage would be to build a table of contents so that users can easily access information, without going through each page in order to find what they are looking for. The table of contents would consist of each decade, spanning from the birth of the game, to the founding of the NBA, to the modern era of basketball. In the table of contents, underneath each decade will include a subsection that will list the key points of that page so that the user can be aware of what to expect when they select that page.

**2 Requirements Specification**

**2.1 Data Requirements**

The main data requirements; constants, variables, etc., of the system ***(your system)*** are defined here***.***

1. Grids
2. Tables
3. Columns

**2.2 Functional Requirements**

The main functional requirements of the system ***(your system)*** are the following:

1. Animations

a. Hover effects

b. Transitions

1. Sport History
2. Sport Birth (who invented the sport)
3. First game of the sport (pre-NBA)
4. Basketball Infancy (late 1800s to 1950s)

* Foundation of the NBA (1946)

1. First NBA Game
2. The NBA’s first superstar (George Mikan) - 1947
3. The Houdini of The Hardwood comes to the NBA (Bob Cousy) - 1950
4. The Battle of the Giants (1960s)
5. The Dark Days of the NBA (1970s)
6. The Two that saved the NBA (1980s)
7. The MJ Era (1990s)

* The 50 greatest players of all time list (1996)

1. The 2000s
2. The Era of Three Pointer Begins (2010s)
3. Modern Era

* The 75th anniversary team (2021)

1. All time lineups (including stats) + history of each franchise

**2.3 Non-functional Requirements**

The most important non-functional requirements for the system ***(your system)*** are the following:

1. .Visual Studio Code
2. .Windows 10

**2.4 User Interface Requirements**

The user interface requirements for the system ***(your system)*** are the following:

1. Users can select a light theme or dark theme
2. Users can click on videos or articles (the video will play when selected and the article will open up when selected)

**References**

A list of all references used for your system requirements should be here.

<https://www.basketball-reference.com/> - Accessed 9/13/22

<https://probasketballencyclopedia.com/players-index/> - Accessed 9/27/22

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