

CAB 432 ASSIGNMENT 1

NBA MASHUP

Semester 2 2020



Giving you the latest news and pictures about your
favourite teams and stadiums

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Introduction:

The NBA news and pics mashup intends to do much of what the name implies it provides a range of services using three different api's which allows users on the site to pick their favourite NBA side and easily look at team information, news relating to the team, images relating to the team, news relating to the teams home stadium and images relating to the stadium. The general team information comes from the sports dB api whilst the news comes from a news api and the images are pulled from Flickr.

Sports dB api:

<https://www.thesportsdb.com/>

the sports dB is a great api that gives access to information about sporting teams and leagues from all different sports and all different leagues, the free version contains information such as team name, team information and team stadiums.

News api:

<https://newsapi.org/>

The News api retrieves up to date news articles on topics that are put through its search engine.

Flickr api:

<https://www.flickr.com/services/api/>

The Flickr api is an api that allows you to pull images from their site that fit specific tags and display them.

Use cases:

Use case A:

Uses the news api and the sports dB api:

As a user of the site I want to be able to select my Team from the menu and look at up to date news about the selected team or the selected team's stadium.

The user will open the page up and select Their favourite team from the list of teams (because of image being small it's hard to see in the pic below).

Get news, team information and pics about your favourite NBA teams

Please choose your team to start:

[Atlanta Hawks](#)
[Boston Celtics](#)
[Brooklyn Nets](#)
[Charlotte Hornets](#)
[Chicago Bulls](#)
[Cleveland Cavaliers](#)
[Detroit Pistons](#)
[Indiana Pacers](#)
[Miami Heat](#)
[Milwaukee Bucks](#)
[New York Knicks](#)
[Orlando Magic](#)
[Philadelphia 76ers](#)
[Toronto Raptors](#)
[Washington Wizards](#)



Once a team has been selected it will bring the user to a page with the teams information and logo that have been pulled from the sports dB api.

Milwaukee Bucks



The Milwaukee Bucks are a professional basketball team based in Milwaukee, Wisconsin. They are part of the Central Division of the Eastern Conference in the National Basketball Association (NBA). The team was founded in 1968 as an expansion team, and plays at the BMO Harris Bradley Center. Former U.S. Senator Herb Kohl was the long-time owner of the team, with John Hammond as current general manager; as of April 16, 2014 a group led by billionaire hedge fund managers Wesley Edens and Marc Lasry agreed to purchase the team from Kohl, a sale which was approved by the owners of the NBA and its board of governors a month later on May 16. The team is currently valued at \$405 million according to Forbes, ranking last in the league. The Bucks have won one league title (1971), two conference titles (1971 and 1974), and thirteen division titles (1971–74, 1976, 1980–86, 2001). They have featured such notable players as Kareem Abdul-Jabbar, Sidney Moncrief, Oscar Robertson, Bob Lanier, Glenn "Big Dog" Robinson, Ray Allen, Andrew Bogut, Michael Redd, Terry Cummings, Vin Baker, Jon McGlocklin, Brandon Jennings and Toni Kukoč.

• Stadium Name: Fiserv Forum

• Stadium Name: Fiserv Forum



[Click here to get Team news](#)
[Click here to get stadium news](#)
[Click here to get Team pictures](#)
[Click here to get stadium pictures](#)

Welcome to the news page

Former Milwaukee Bucks Player John Henson Talks Profiling and Protests

"At some point," said John Henson, who was racially profiled in Wisconsin in 2015, "it needs to be a loud enough message so that everyone says, 'Hey, this is not OK.'"

2020-06-27T23:37:08Z



<https://www.nytimes.com/2020/06/27/sports/basketball/bucks-john-henson.html>

The Milwaukee Bucks Are Ready for a Long Stay in the Bubble

In this week's newsletter, Marc Stein discusses the unusual way the Bucks have prepared for a run to the finals — and why the Los Angeles Clippers may meet them there.

2020-06-09T14:00:05Z



<https://www.nytimes.com/2020/06/09/sports/basketball/milwaukee-bucks-clippers-and-their-dreams.html>

Uses the Flickr api and the sports dB api:

This can be done by once again opening the home page of the website and selecting the team you want to look at.



Miami Heat



The Miami Heat (usually rendered in all-caps as HEAT) are an American professional basketball team based in Miami, Florida. The team is a member of the Southeast Division in the Eastern Conference of the National Basketball Association (NBA). They play their home games at the American Airlines Arena in Downtown Miami. The team owner is Micky Arison, who also owns cruise-ship giant Carnival Corporation. The team president and de facto general manager is Pat Riley, and the head coach is Erik Spoelstra. The mascot of the team is Burnie, an anthropomorphic fireball. Formed in 1988 as one of the NBA's four expansion franchises, the Heat have won three league championships (in 2006, 2012 and 2013), five conference titles and 11 division titles. From February 3 to March 27, 2013, the Heat won 27 games in a row, the second-longest streak in NBA history (after the Los Angeles Lakers' 33 wins). In 2013, Forbes valued the Heat at \$625 million, sixth-most-valuable among NBA franchises. The Heat are not related to the Miami Floridians, an ABA team in the early 1970s, although the Heat have occasionally paid tribute to the older franchise by wearing a replica version of the Floridians' uniforms for the NBA's "Hardwood Classics Nights" during the 2005–06 and 2011–12 seasons.

• Stadium Name: American Airlines Arena

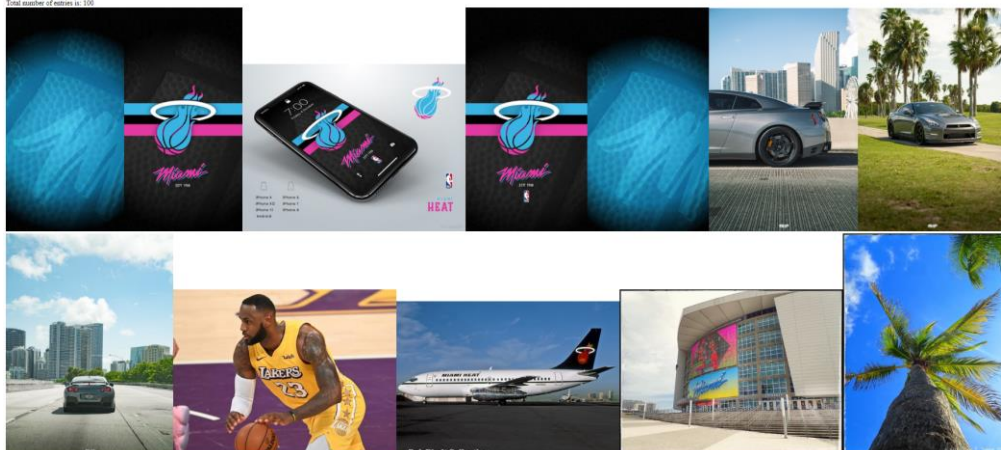


- [Click here to get Team news](#)
- [Click here to get stadium news](#)
- [Click here to get Team pictures](#)
- [Click here to get stadium pictures](#)

Once navigated to the team page of your choosing the user can then click on either the team pictures link or the stadium pictures link to get pictures of the Team or things going on in the team's stadium respectively. The images come from the flickr api which brings up the top 100 results for the queried tag which in this case is either the name of the team or the name of the stadium they play in both of which are gathered from the sports dB api.

Flickr Photo Search

Total number of photos is: 100



Use Case C:

In use case C the user might just want to look at some basic information about a team. In this case the user will just click on a team name and then be provided with an image of the team logo, jersey, stadium and some bio information about the team. (I haven't attached a pic for this one because it is just the image 2 from each of the above use cases) (and also don't think this counts as a real use case because it only uses 1 api but is still relevant)

Technical breakdown:

This NBA mashup runs on Node js using express for the client side. The server handles all of the information processing with the Json object being used to produce the web page. A simple html page is made for the starting page using the team links as hardcoded options to enable the gathering of data from the sports dB api, once clicked the data is stored from the api to avoid any more hardcoding. Using a route, the Team part of the application is used which also uses html to display information gathered from the sports dB api. Then for the news another html page is used to display the information that has been gotten from the news api but this time using the data from the team's section to query the search term for the news. The Flickr side is done much the same just using a router to use the display the Flickr page using some basic Html to display images grabbed from the Flickr Json response and display them on a page using the queries gathered from the teams section. This code is then all uploaded and built as a docker instance to be deployed to an aws ubuntu machine.

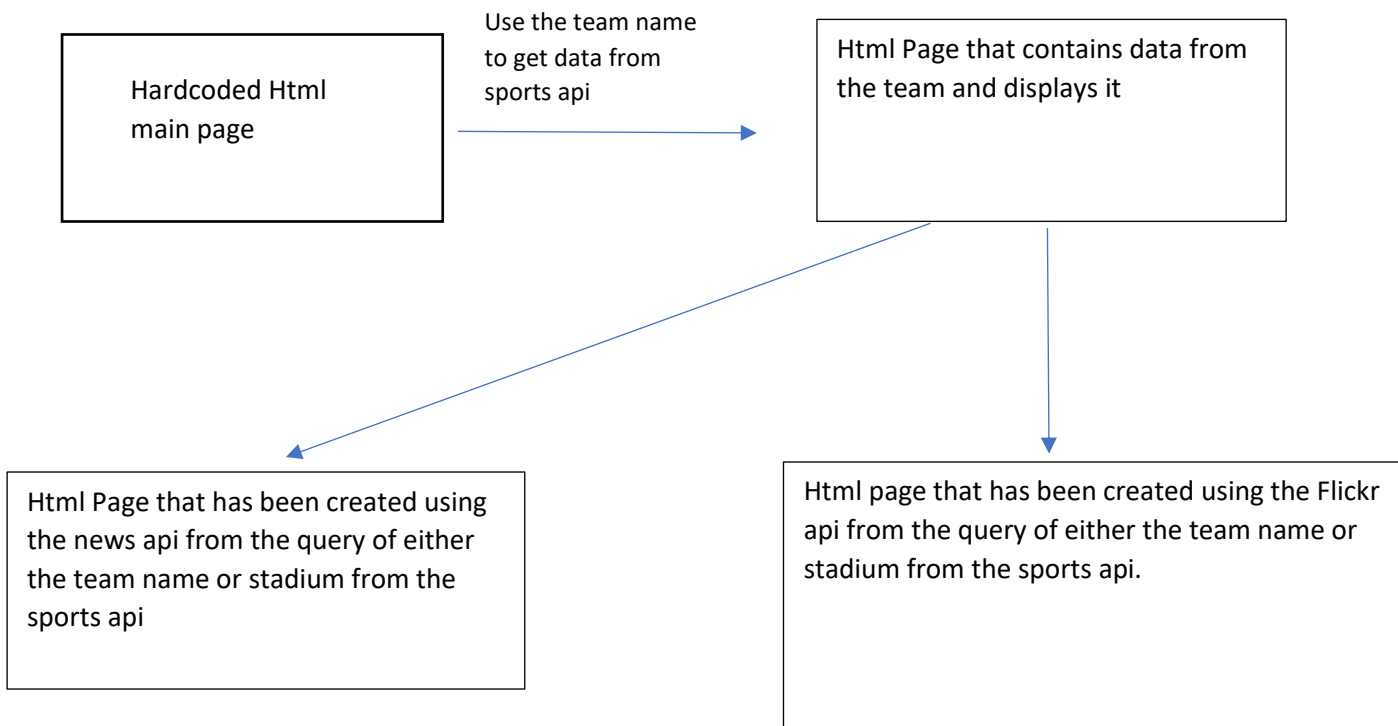


Figure 1. Diagram of how the application communicates

Difficulties:

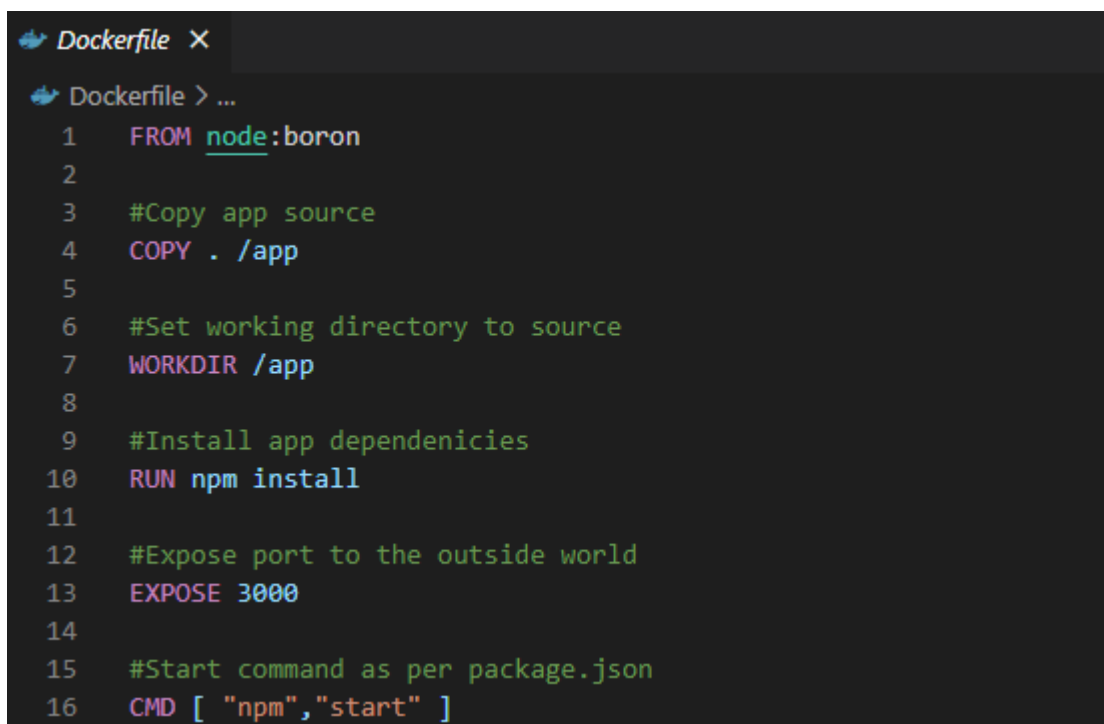
Lack of knowledge with html:

I came into this assessment with minimal to no knowledge of how to code a website in html pug or any other type of template so it was very hard to format my information correctly and was also hard to implement some features that I wanted to such as a back button because I had no idea how it would work using the html.

Lack of functionality with the sports api:

My original idea was to use the sports api to gather data for football teams instead and have it give me a list of players and the manager and then retrieve news and pictures for them instead of the teams and stadiums however, after I started coding a bit I realised that getting the player list from the site was a paid feature which I didn't want to use so I had to switch the basis of my assessment around a bit and decided to use basketball instead using the teams and their stadiums as my respective searches.

Docker:

A screenshot of a code editor showing a Dockerfile. The editor has a dark theme. The title bar of the file is 'Dockerfile' with a close button. The content of the Dockerfile is as follows:

```
1 FROM node:boron
2
3 #Copy app source
4 COPY . /app
5
6 #Set working directory to source
7 WORKDIR /app
8
9 #Install app dependencies
10 RUN npm install
11
12 #Expose port to the outside world
13 EXPOSE 3000
14
15 #Start command as per package.json
16 CMD [ "npm","start" ]
```

Figure 2. Docker file

The Dockerfile uses the Node as the base image and simply copies all data to a new app folder in the image. Once the source is copied, dependencies using npm are installed, npm was used as this was the package manager used in development, it is ideal to keep this consistent. The port that the express server uses is exposed and then the node application is started using the command npm start In the server folder, The image is run using: docker run -p 80:3000 app

-p : specifies the port, mapping the host:80 to container:3000

Testing and limitations:

Action	Expected outcome	Actual outcome
Load application from root url	Homepage is displayed with nba teams' names as links	PASS
Click on a team name from homepage	Information for that team should be displayed with four links down the bottom	Pass
Click on the Team news link	Team news should be displayed on a new page	Pass
Click on stadium news link	Stadium news should be displayed on a new page	Pass
Click on Team pictures link	Team pictures should be displayed on a new page	Pass
Click on Stadium pictures link	Stadium pictures should be displayed on a new page	Pass
Click on a news link when there is no news regarding the teams	Site should display an empty page no error occurs	Pass
Click on a pictures link when there are no pictures regarding the team	Pictures page is empty no error occurs	N/A

Testing error handling

Action	Expected outcome	Actual outcome
Fail to remove spaces from Flickr links	Page says query has unspaced characters	Pass
Remove api key for news api	Page is still created but error reads that the api key is invalid	Pass
Purposely misspell team name so clicking link does not work	Should redirect you to Washington Wizards team page	Pass

Extensions:

There are some obvious extensions that could be made to this application. Firstly the upgrade to the paid version of the sports api could add so much more value allowing another section for players to be individually looked up and could help clean up code as teams could then be searched by id instead of using a hardcoded team name. The next possible extension would be a clean-up of the front-end framework. Which could have been used to tidy up the website and made some of the code a lot more clean. More functionality that could be added is to add say the WNBA into the mix so you could use the same code and just add some more options for the WNBA this could be used for any sport and any league even.

Appendix A: Brief user guide

Start the application using either docker run or node app

Click on the link that will appear in the terminal

```
PS C:\Users\Normo\Downloads\CAB432_n10256989\CAB432_n10256989\nbamashup> node app
Express app listening at http://127.0.0.1:3000/
```

This will take you to a home page that looks like this

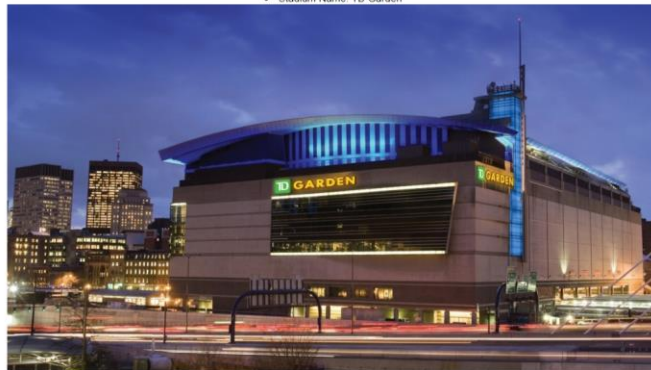


Click on the team you want to view

Once you've done that you'll be directed to a page that looks like this

A cartoon illustration of a leprechaun dressed in a green and gold Celtic patterned vest, a white shirt, and a green hat with a gold band. He is holding a red basketball in his right hand and a red string in his left hand. He is standing next to a green Boston Celtics jersey with the word "BOSTON" and the number "7" in white. The jersey also features a Nike logo and a small "MADE IN USA" tag.

- Stadium Name: TD Garden



- If a News page has been selected it will look like this

- 1.
- 2.
- 3.

2020-08-29T18:26:00



<https://la.nba.com/news/story-center-overstyle-story-listed-as-questionable-with-grim-again-ahead-of-game-1-against-toronto-celtics/2017/05/22/1705220001>

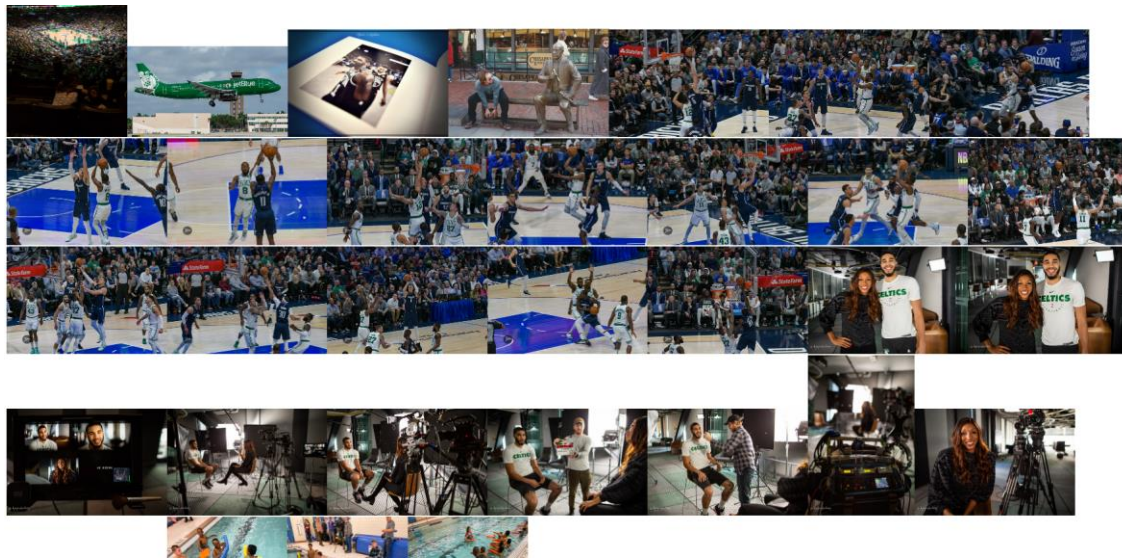
LOS ANGELES—Waxing philosophic about the team's chemistry and grit over the dinner table, media mogul Bill Simmons critiqued his wife's lasagna Tuesday by insisting that the 1985-1986 Boston Celtics were still better. "You made a great marinara sauce, honey,

2023-04-01T18:30:00



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If you click on an images page it will look more like this



You can click on the image you'd like to see to be taken to Flickr to view It bigger

You can use your button to navigate to the page you were at before whenever you'd like.