Total [h]   **185**

date	time [h]	task
15.3	2	Planning and writing project specification
	4	Setting up the project. Checking how the external api works.
	1	Learning to use Chart.js.
16.3	1	Restructuring the project files to folders: frontend, backend and info.
	4	Refactoring. Saving players and teams from api to database.
17.3	3	Script to get all stats from api to database. Refactor the database models.
18.3	2	Brought all players from database to React state so it's possible to select which player's stats the user wants to see.
19.3	1	Add searchable drop down list to select a player. Fetch data from api, not database yet.
	2	First working version of season dropdown menu select for seasons. Still fetching data from api
	1	First simple working version to get data from the database
	2	Get stats for user from database with user input for player and seasons
22.3	1	Add react-bootstrap and react-router-dom
	1	Change how the stats are shown
	1	Refactor components
	1	Add trailing averages to the stats
	1	Trying to add hide/show button to the chart but didn't get it to work yet
23.3	1	Add minutes to chart
		Filter out documents where min = null in the query
	2	Add possibility to select regular and postseason and get data accordingly from database
	1	Refactor regular/post season selection to its own component
		Add to the player stats page status of selected seasons and if they are regular or post
24.3	4	Add styling to extend the style to the bottom of the screen
		Add checkboxes to select which stats are not hidden on the graph
25.3	1	Chart responds to user selection of basic stats. Change chart colors
	1	Refactoring. Add options to the chart to make it responsive and disable legend toggle
	2	Backend doesn't filter queries by regular / post season. Change post / regular season selection to button type
		Filter chart stats in frontend based on regular / post season selection
26.3	1	Add all stats to the graph with checkbox functionality
	2	Algorithm to count ft_pct correctly when fta = 0
		Add pct count algorithm for fg_pct and fg3_pct
	1	Trying to figure out how to implement two handle range slider but couldn't find an easy way to do it
	1	Database returns all seasons for a player
		Filter shown seasons in the frontend
	1	Hide chart legends and tweak the chart options to make it behave better
		Refactor stats selection and add colors to them
	1	Reposition buttons: Get stats, regular and post. Refactoring

29.3	1	Reposition stat selection checkboxes
		Remove x-axis labels because they took too much screen space
	1	Add players active years below his name so the user can see if those differ from his/her selection
		Fix bug that showed years wrong. Add games amount during the selected time period
	1	Add logo to landing page
		Set logo setting so that it doesn't resize anymore
30.3	1	Fix problems with react-bootstrap
	1	Finetune component locations on screen
		Update React
	1	Finetuning, removing warnings, getting ready for first Heroku deployment
		Set up for first Heroku deployment
		Move backend to repository root so it can be deployed to Heroku
	1	Refactoring. Remove button Get stats because it's not needed
		Remove unnecessary files
		Add loading indicator when fetching data from database
31.3	2	Finetune the loading spinner logic
		Finetune column sizes and loading spinner. Add instructions.
	2	Scripts for ui build and full deployment
		Set up domain bballchart.com in Namecheap. Configure Namecheap to point to Heroku DNS.
1.4	1	Refactoring. 'Automating' the data moving from api to database
	1	Install package colors and use it in the backend
		Make backend respond with a status message when moving data from api to database
		First workflow for periodic checks
		Add condition to data retrieving from api to avoid unnecessary requests
	1	Fix bug in workflow
		Change favicon.ico in the browser tab
		Fix bug in workflow
5.4	3	Fix bug in trailing percentages counting
		Fix bug when selected first season is greater than selected last season
		Finetune the instructions
		Change the first season from 1980 to 1979
		Add tips for a better user experience
		Remove console.log when searching for player stats
	1	Fix bug when periodic workflow tries to ping and trigger data poll from api
	1	Add Google tracking code to make Google Analytics work
6.4	3	Refactoring for implementing a new view for teams
		Add select drop down menu for teams
		Add endpoint for team stats and query them from database
		Bug fix for team stats data query
		Bring team stats data to frontend for further usage
	3	Add season selection for team stats
		Add loading spinner for teams
		Calculate totals for each player of the basic stats
	1	Add doughnut chart for team total points
	1	Add doughnut charts for all team total stats

7.4	3	Fix bug that team stats query returned documents where min is null
		Fix bug when team selection always fetched data from season 2020
		Rearrange the doughnut chart more compactly
		Finetune doughnut charts positioning
		Add selection for regular or post season for doughnut charts
		Fix bug when doughnut chart showed minutes wrong in seasons in the 80s and 90s
		Add per game calculations
		Add doughnut charts for per game stats
		Add selection for per game and total stats
	1	Add keywords and description into index.html
		Add logo to teams page
	3	Compare calculations to espn stats. Seems to be correctly calculated.
		Testing doughnut charts
	1	Make the operation more dynamic
		Clean up the logo
	2	Add google analytics to the react app
		Finetune react google analytics
8.4	3	Use react google analytics with the tracking code as an environmental variable
		Remove navbar and use links on top of the page to navigate
		Change teams data query from api to database
		Fix bug where an undefined player in teamStats crashed the program
	2	Add selection for per 36 min stats
		Testing per 36 min stats using basketball-reference.com. Seems to be correct within a few decimals
		Discard per36 calculation if minPer is too low and fix bug in data query from api to database that missed some new data
		Add title and description of the website
	2	Finetune teams view and its loading spinner
		Finetune players view and its loading spinner
		Add route to index.html to make different paths work in the address bar
		Trying to get Heroku addresses to work
		Working solution to get different address bar paths to work in heroku
9.4	2	Descriptions for players and teams pages
		Fix bug in players page when post season games were 0
		Email the status of data query from api to database
	6	Add TopTwenty stats
10.4	1	Fix bug in player page season selection when selecting starting season didn't show correct data
		Player stats chart y-axis start at zero and color white
12.4	2	Prepare for a new player comparison page
	2	First version of compare players page
	2	Finetune compare players page
13.4	1	Finetune the compare players stats presentation
	2	Prototype for counting and moving stats summary data to database
	3	Trying to get summary data transfer to database to work, problem with id

14.4	1	First working version of saving summary data to database
	2	Add more stats to summary data and move season 2019 summary data to database
	3	Add season to summary data because it is needed in queries
		Add all stats to summary frontend
		Finetune filtering for pct stats in frontend
		Refactor and add % selection for summary stats
15.4	3	Refactor SelectPerTotal.js
		Refactor SelectRegularPost.js
		Refactoring top20 data and options handling so it can be used elsewhere also
	3	Refactoring, add selection for how many players are shown in barcharts
		Calculate summary data and save to database for seasons 1983-2020
16.4	3	Refactor data queries in frontend to avoid unecessary queries
		Refactor Teams and change its chart type to Bar
		Refactor bar charts into its own component BarCharts
		Refactor Teams to use component BarCharts
	2	Update ongoing season summary data and a periodic workflow for it
		Change filtering in barChartData service to match them better with official NBA stats
19.4	3	Try to fix error in summary data update workflow
		Make line breaks consistent in BarCharts
		Refactor common components to their own folder
		Form to send feedback to the developer
		Indication that message has been sent
	2	Backend for receiving messages from users to developer's email
		Notification not to send an empty message
20.4	2	Stop using workflow for summary data because Heroku runs out of memory
		Change periodic stats data update workflow to run once a day to avoid getting data in the middle of a game
		Reposition radio buttons in top players page for better usability
		Reposition radio buttons in teams page for better usability
	2	Change filter in pcts to attempts >=50
		Rename barchart titles and bug fixes
		Add google analytics to Contact
		Sort teams in alphabetical order by city
		Disable workflow for summary data
		Script to get all stats from api to database. Refactor the database models.
21.4	3	Add fga, fgm, fg3a, fg3m, fta and ftm to barChartData
		Add fga, fgm ,fg3a, fg3m, fta and ftm to BarCharts, TopPlayers and Teams
		Remove unnecessary sorting when fetching data for top players and teams
		Fix bug that showed undefined data on bar charts
		Fix bug that showed player stats when min was '' or '0'
	1	Round values in player stats to one decimal point
		Change data fetching from api to database workflow to happen daily at about 11:30
22.4	2	Bug fix when p36m sorting didn't work and chart showed data in wrong order

23.4	3	Start using Navbar again
		Finetune the page descriptions
		Refactor compare players to use common components
	3	Remove unnecessary comments and console logs
		Removing unnecessary files and comments and console logs
		Refactor column widths to use values from styling folder
		Add gridlines on the bar chart y-axes
		Add gridlines on the line chart y-axes
		Finetune stats selection position in playercareer page
26.4	2	Base for a new page percentiles
		Sort alphabetically and remove duplicates from player selection
	2	Prototype for percentiles page
		Developing percentileStats
27.4	2	First working version for data structures to show percentiles
	2	First working version of percentile stats in chart form
		Add percentages and more colors to percentiles
		Description for percentiles page
		Clean up of unnecessary console logs and warnings
28.4	4	Percentile data structures and charts for all stats and pg, p36, total and %
		Change the navbar hamburger color to light
		Set percentiles chart y-axis max value to a fixed 100
29.4	6	Draw project diagram
30.4	4	Testing player career page
		Testing teams page
		Return only stats starting from season 1983 because earlier seasons have incomplete stats
		Change player career starting season selection from 1979 to 1983
		Change compare players season selection from 1979 to 1983
		Sort players by last name for compare players player selection
		Change top players season selection minimum fron 1979 to 1983
		Change teams season selection minimum fron 1979 to 1983
		Change entire project style height: 1500vh to minHeight: 100vh so there's no empty space at the bottom
3.5	4	Testing
	1	Writing README and instructions
4.5	2	Testing. Compare player career stats to official NBA stats.
5.5	2	Testing. Compare top players stats to official NBA stats.
6.5	2	Testing. Compare compare player stats to official NBA stats.
7.7	2	Testing. Compare team and percentile stats to official NBA stats.