# Applied research

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# Topic

The topic being researched in this document is going to be “*Building a system for buying tickets for NBA games with Spring boot”.* To answer this question research will be conducted making use of the DOT framework. By creating a main and sub questions as well as choosing the most suitable research methods I will dive more deeply in this topic.

# Main question

How do I create a system containing players, games and stats for players and games so the user can choose which game he wants to purchase a ticket for?

# Sub questions

1. What external source can I use for live data and why external source?
2. Best practices in making database designs for saving tickets?
3. How to map the external data with the tickets which are part of internal API?

# Research methods

## Sub question 1

In order to answer this question, I will use the following research methods: ‘**Community research**’ and ‘**Available product analyses**.

# Results

## Sub question 1

To answer the why part of this questions I need to first explain what the NBA is in real life. The NBA (Nation Basketball Association) is the primary professional basketball league in North America. It consists of 30 teams located across the country. It is no longer the case that basketball players come only from the United States and Canada. The NBA recruit players from around the world. Connecting to NBA data allows global fans to follow their favorite players in areas where the games are not telecast. Also, a lot of trades are going on and a lot of the data is changing which is going to make it very difficult to keep track of every change and put that in the data if it was to be stored locally in a database for example. For these reasons I decided to try and find an API which is going to provide all the live and accurate data I need for this application.

After researching all options of available external API sources containing live data these are the sources I came upon:

* Sportspage Feeds
* API-NBA
* Live Sports Odds
* The Rundown
* Free NBA API (balldontlie)
* NBA Stats
* Basketball Data
* Real-Time Basketball Content
* JsonOdds

After looking through the options above I decided to go for Free NBA API (balldontlie) for several reasons. First of all, although all of the options are free to use in the beginning most of them require you to pay subscription after a certain amount of time has passed which is not the case with balldontlie API which is free no matter how much time you have been using it. What is more, this API contains a lot of data such as players statistics, teams, games and more which is more than enough for a full and reliable application which provides all the information the user may need or want to know before eventually buying tickets for games which is the main purpose of the application. The API also has a nice documentation explaining exactly how to connect to it and fetch the data you need.