



# Task

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## Software Developer

Welcome to the 2nd step of **Mistral**'s hiring process for the Software Developer role. We take our values of **People First** and **Culture of Trust** really seriously and that is why we put an extra effort in ensuring a fit between our community and each future team member.

If in need for any additional clarification feel free to reach out.

**Good luck!**

**Goal is to build a movie rating engine, similar to the one on imdb.com, but much, much simpler and more rudimentary. So we would not waste time, your solution does not have to be nearly as detailed. Each movie should only have a title, a cover image, a description, release date, and cast (at least two actors per movie). Also, every movie can be rated by other users by 1-5 stars.**

**User stories that need to be covered are given below**

### Front end

- Upon starting the app, user should be presented with the 10 top rated movies
- There should be a tab, or a toggle switch that would allow the user to see the top rated 10 TV Shows
- Above the Toggle/Tab component, there should be a search bar that would allow user to search for any movie/show in the DB
- Search bar should react to user's input automatically, but not before there's at least 2 characters entered in the search bar
- Search should be by any of the movie's textual attributes
- Search engine should also understand phrases like "5 stars", "at least 3 stars", "after 2015", "older than 5 years"
- Search results should still be sorted by movie rating, just as they are upon the app start (so the page always displays either top 10 rated movies of all time, or top 10 rated movies among all the search results)
- If the search bar is cleared, top 10 movies/shows of all time should reappear as results, depending on which tab/toggle switch value is selected
- Implement the "view more results" feature, that would, every time the user clicks on it, load 10 more results.
- Also implement a simple list of all the movies where users can give their rating to each movie. No need for textual feedback, only star-rating will be enough. You don't need to authenticate those users, anonymous rating will suffice.

- Every movie in the list mentioned above should have a graphic control that displays the average rating of the particular movie.
- Although we said authentication is not necessary, it would be a nice bonus, if you do find time to implement OAuth2 authentication for end users, we would be very happy :)

## Back end

- Design the DB and the API that will enable you to complete all the front-end user stories.
- Implement some kind of API authentication so no unauthorized requests would be responded to from the API side.
- Store the movie images any way you prefer or find the best suited for this purpose (A file on the file system, BLOB in the DB, some kind of cloud service like AWS S3, or something completely different)
- Make sure your API follows REST principles
- Make sure that you white list all the REST verbs used in your API

## Notes and Assumptions

- You don't have to spend too much effort polishing your solution and solving all the bugs. Focus on showing off your coding technique, best practices and concepts knowledge. For example, we'd rather see you properly set up and use a global exception handler, than having a perfectly responsive UI.
- UI does not need to be polished, no need for fancy graphics, a white background and simple controls will be more than enough. Just make sure content is nicely displayed and it does not break when viewed on different resolutions, especially mobile devices.
- You do not have to implement any content editing pages, or anything else not mentioned in the user stories. You can load the test data manually if you wish, or use any other mean you find more suitable
- Technology stack is completely up to you. If it's all the same for you, we prefer either .NET, or NodeJS on back end and Vue, React, or Angular on front end, but you don't have to use any of those. No minus points will be given because of the tech-stack.

- Use any DB you want, feel most comfortable with, and that you find most suitable for the job.
- We think seniors should be good at estimating their efforts, so it is very important to us for you not to break the deadline you set in front yourself.
- Please let us know if you have any additional questions
- Please let us know if you find this task faulty, or too big/difficult, but provide us with some details about your concerns and observations, so we can negotiate a different/smaller scope.

**Thank you. We are looking forward to seeing your work.**