HACETTEPE UNIVERSITY
COMPUTER ENGINEERING DEPARTMENT

UNDERGRADUATE PROJECT PROPOSAL

Project Name	**Proposed Term**
Keyword-based Movie Suggestion and Rating Application	☐ Fall ■ Spring ☐ Fall + Spring

Student Number(s)	**Student Name(s)**
21627543 21626901 21627802	Ece OMURTAY Deniz Ece AKTAŞ Ömer Bilal YAY
Supervisor(s)	**Expertise Area(s)**
Murat AYDOS	■ Software ☐ Hardware ■ Computer Science ☐ Other _____
Technical Complexity	**Research Dimension**
☐ Very Low ☐ Low ☐ Medium ■ High ☐ Very High	☐ Very Low ☐ Low ☐ Medium ■ High ☐ Very High

Owner(s) of intellectual property	**Does the Project require ethics approval?**
■ Student(s) ☐ Supervisor(s) ☐ Company	☐ Yes ■ No
Company Representative	**Is the Project supported by a formal body?**

Company Name: Contact Name: Contact Email:	☐ Yes ■ No If yes, name of body: _____

Project Coordinator	**Proposal Approval**
Date: _____	☐ Yes ☐ No If no, rational of rejection: _____

A. PROJECT VISION

I. PROJECT SUMMARY

We are planning to develop a web application where movie search and rating is the main attribute, this product will use datababes and APIs to get the movies and the web application will have rating system where the user will rate the movies, will be able to see where to reach the movie and will be able to search movies with specific keywords like ”war movies” etc.

Keywords: Data management, web application development, full-stack development

II. PRODUCT FEATURES

The basic features we are planning to develop are; registering into the system, loggin in, logging out, password recovery, searching movies, rating the movies, being able to see where to watch the movie. The search system we are planning to implement searches the movies from their names, categories, actors/ actresses and their specific attributes. The users will be able to rate the movies not only overall but also they can give particular ratings such as actor/actresses points, scenario points etc. Also the user can see where to watch the movie for example; this movie can be watched on Netflix etc.

III. SUMMARY OF STATE-OF-THE-ART

There are already movie rating websites available like IMDB.com[1] but the differences in our work are; rather than being able to give only one overall rating the users will be able to give points to the actors, director, story etc. separately. Another difference is that the search system of our application should be able to search movies with specific keywords rather than only the name of the movie. Also we are planning to add a feature that would show where the movie is available to watch.

IV. INNOVATIVE ASPECTS

The innovative feature we are trying to develop is that the search system of our application should be able to search movies with specific keywords rather than only the name of the movie like “movies with reference to video games”etc.

V. POTENTIAL CONTRIBUTION(S) TO INDUSTRY AND ECONOMY

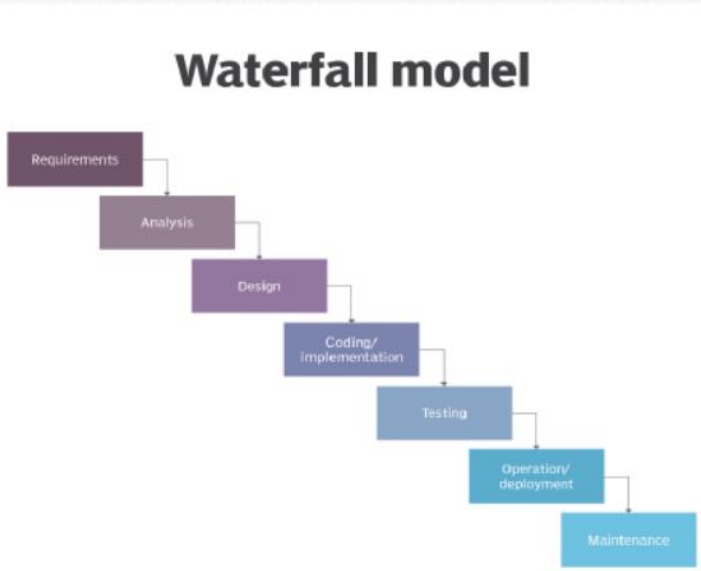
The potential contribution to the industry and the economy of our study is that with this web application, if we get enough traffic we can monetize the website and this way we can have economical benefits.

VI. TECHNOLOGIES TO DEVELOP/USE AND UNIQUE ACHIEVEMENTS

We are planning to use ReactJS, NodeJS and visual studio to develop our website and for the dataset we are planning to use SQL and API's from open data sources. We are planning to use Java as our programming language.

VII. METHOD TO FOLLOW

We are planning to use waterfall model which is a sequential life cycle model is a model that separates the work load into phases. These phases are; requirement gathering and analysis which researches the possible necessities for the system to be developed, we are all working on this as a team. System design is the second step and in this step systems overall architecture is decided and again we all work in this step as a team. Implementation is the third step and in this step we are planning to divide the team into backend and frontend workers and this step will be all throughout development until the end. Integration and testing will be done by developers also and will go all throughout development as improvements are made we are planning to keep testing the system. Deployment is the step in which in the last week with our presentations we will give our systems to Tas. Maintenance step is to keep the system updated



VIII. REFERENCES

[1]. https://www.imdb.com/?ref_=nv_home

B. PROJECT PLAN

I. PROJECT GOALS

The main goals we are trying to archive at the end of the project are understanding the process of developing a web application, working with databases, API's and working with servers. We are planning to host the website we will develop and because we are planning to experience how hosting a website is for the developers.

II. PROJECT ORGANIZATION

Our team consists of three members: Ece OMURTAY, Deniz Ece AKTAŞ and Ömer Bilal YAY. During the project we are working collectively but we first of all focused on some areas individually and did research also. Ömer Bilal Yay focused on databases, provides the API keys while Ece Omurtay and Deniz Ece Aktaş focuse on development f the application, specifically backend for Ece Omurtay and frontend for Deniz Ece Aktaş. But just as we stated above all of the team members will contribute to each of the work areas. Because we are working remotely due to Covid-19 pandemic, we are using Whatsapp, Discord and Zoom for communication also to have meetings with our supervisor we are using Zoom. We share codes, data, files and results with Dropbox and Github.

III. PROJECT MILESTONES AND OBJECTIVES

Milestone #	Primary Objective	Due Date	Project Deliverable (if any)
1.	Project Proposal Report Delivery	March 2021	Project proposal reports will be submitted.
2.	To collect the dataset that will be used and do market research.	March 2021	The dataset that will be used will be available
3.	Research about web application methods like ReactJS and NodeJS and starting the development process.	March 2021	Coding process will start.
4.	Project process evaluation and project process report delivery	April 2021	Project process reports will be submitted.
5.	Tests on the developed application will be done and also optimizations will be made.	May 2021	Optimized result is acquired.
6.	Final project delivery and presentations	June 2021	Final project reports and presentations will be delivered.

IV. PROJECT PRACTICES AND MEASURES

Task #	Task Description	Responsible Team Member	Start Date	Finish Date	Success Criteria
1.	Do market research.	Ece Omurtay Deniz Ece Aktaş Ömer Bilal Yay	March 2021	March 2021	Having unique features.
2.	To collect the dataset that will be used.	Ömer Bilal Yay	March 2021	March 2021	Having a database that is versatile.
3.	Research about web application methods like ReactJS and NodeJS and developing the application.	Ece Omurtay Deniz Ece Aktaş	March 2021	May 2021	Having a working website.
4.	Tests on the developed application will be done and also optimizations will be made.	Ece Omurtay Deniz Ece Aktaş Ömer Bilal Yay	May 2021	June 2021	Optimized application is developed.

V. PROJECT BUDGET

We are going to use our own computers that we have and as for software we are planning to use Visual Studio, ReactJS, Google Docs and SQL but we will use the student packets or community editions of these softwares so we will not be doing any expenses and also because of the COVID-19 pandemic we will be working remotely so we will not be having any commuting expenses. As for income we don't have any income that is related to design project.

VI. PROJECT RISKS

Risk Item #	Description	Probability	Effect	How to handle its occurrence? (Plan-B)
1.	If we aren't able to get a strong dataset which contains a good mount of movie options the suggestions may seem not efficient.	Possible	Users wouldn't use the web application.	We are planning to use an API and also we will try to expand the dataset as the application develops.
2.	If we couldn't finish the application on time, we can't host the application on a server.	Possible	Users wouldn't be able use the web application.	We are planning to follow our project plan so we can finish the project on time.