Individual Assignment - Movie application

Project Plan

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1. Project definition

1.1.   Problem definition

The project's aim is to create a safe environment for all people who enjoy the same thing. It is going to be constructed in a way to prevent some of the main problems in the online space:

- The project's main idea is to give people easy access to a website on which they can find trustworthy information about a movie/show fast. A user can easily search up a new movie and check whether it is one he can enjoy depending on the rating, the description and its reviews. The reviews from other users are going to help in the choice making.
- The online space is accessible to everyone and gives the opportunity to express your feelings freely. However, not everywhere it is being monitored what is being said. One of the project's main priorities is to prevent violent acts such as bullying, harassment and extremely harsh language in the reviews. The management is going to take action in order to keep a friendly environment and stay away from virtual aggression.
- The main aim of the project is connecting people with the same interests. Any user can get on and find a suitable movie or show for themselves according to their liking. However, the users with the account will even get personalized recommendations according to their liked genres. The reviews are also a tool to find which people have shared interests from all over the world.

1.2.   Project goal

The movie application is going to connect all the movie lovers from all over the world. The project's main goal is to create a well-organized and easy to use webpage application for the users and a fully functioning desktop application for the management.

The main feature of the webpage will be to look up a movie/show and find all the needed information about it including reviews. More features are going to be visible only for the users holding an account. They will be able to have a personal profile page, where they can write a public description, and also share their own thoughts about a certain movie and rate it. The reviews will be visible for all other users and the given number of stars will be used to calculate the current rating of the media item according to the website users. The user will be able to also add any media item to their favorite list and remove it too. The favorite list helps the system give out personalized recommendations.

Although the login system opens up more features to a user, it is possible to continue without an account at the welcome page. Registering is going to be possible at any time.

The desktop application is intended for the management of the website. Using a Windows Forms Application the workers will be able to control all the data in the system and manipulate it. The app will have its own login system, the details for which only the

employees will know. On it the reviews can be checked and deleted, the profiles can be seen and new movies/shows can be added, seen, deleted and updated with new data.

Lastly, the data will be kept in a database, which can be accessed any time in both applications.

1.3. Strategy

The working process has a limit of 16 weeks and every time something has changed it will be updated in Git. The link for it is:

https://git.fhict.nl/I500809/individual-assignment-movie-application.git

Changes will be made every week and uploaded in order to track the project progress. The project is going to make use of WindowsForms Application and a web page, which will be worked on simultaneously in order to not forget one of the two apps.

In order to track progress, it is important to ask the teachers for feedback often. The given advice and changes will be written down and taken into consideration.

1.4. Research questions

What can be made to make sure the website is accessible and user-friendly for all?

- Research and looking for studies, guidelines about user friendly web design and accessibility as well as analyzing already existing websites, which are open to all users. Another tool is observations on user interaction with the application and the performance of tasks for different users.
- Including a feedback mechanism to help users report their accessibility experience and complaints will help raise awareness of the situation.
- Workshop prototyping before creating the application will help gather opinions and useful feedback about the accessibility level.

How can it be made sure that the information about movies and shows is trustworthy?

- The information can be checked before uploading using reputable sources(e.g., IMDb, Rotten Tomatoes). Data collection on the reviews, the movie/show data and ratings.

How can it be made sure that the recommendations given to the users are being generated based on their liked genres?

- The root of the recommendations are the user's favorite movies and shows. The main way to generate them accordingly is to collect the user's data and to determine the preferred genres. Future improvement can be made to the application making the recommendation feature better while learning the user's interaction with the app.

What measures can be taken to prevent violent acts such as bullying, verbal harassment and harsh language?

- Online harassment is a big problem taking place all over the internet. The main tool of prevention is unceasing moderation of all the data produced by users. A well organized management and a regular check over the reviews will create the desired safe space. Future features can be a reporting system which allows the users to give a signal of flagged content to the website administration.
- The performance of the moderation can be checked through a survey for the users.

1.5. Scope

The scope of the project is to create a web application using Razor pages and a desktop application using Windows Forms, which will give users the possibility to find out more about movies and shows and expand their horizons. The main goal is to create an organized and accessible space for sharing your thoughts, finding new information and connecting. Mainly, the project will focus on making use of Razor pages and the newly learned feature of object-oriented programming - inheritance, and a database for data storing and making a connection between the two applications. The other main objective is to make the user experience as pleasing as possible.

2. Project structure organization

2.1 Communication

All the parts of the project will be worked on simultaneously and improvements will be made every week. The new knowledge during the semester will be used in the implementations. Communications with the teachers will be done mainly in the university during the lesson hours. Online is also an option using Teams. The formative feedback session will be a mandatory time to receive feedback.

2.2 Stakeholders

Name	Role and function	Availability
Gupta, Roopali R.	Tutor Project guidance - OOD	Every week. Possible times: - Mondays 9:00-12:00 - Tuesdays 13:00 - 16:00 Formative feedback sessions: - Week 6 & 7 - Week 11 & 12
Kuprys, Andrius A.	Tutor Project guidance - WAD	Every week. Possible times: - Mondays 13:00-16:00 - Tuesdays 13:00 - 16:00 Formative feedback sessions: - Week 7 & 8

		- Week 12 & 13
Heuman, Hans J.B.H.M. van	Tutor Project guidance - WKS	Every week. Possible times: - Wednesdays 10:30-12:00 - Wednesdays 13:00 - 16:00 Formative feedback sessions: - Week 4 & 5 - Week 8 & 9 - Week 13 & 14

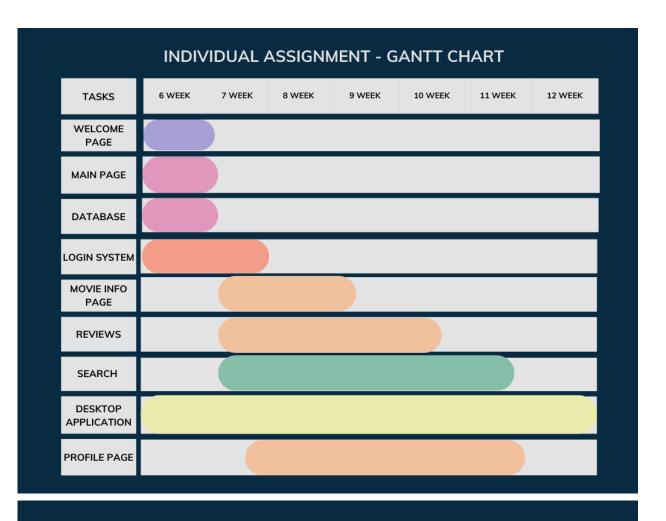# 3. Activities and time plan

3.1. Phases of the project

The project will mainly follow the Waterfall methodology at the beginning due to the many tasks which need to be done one after another. Those tasks include the documentation, the git repository, the basic prototype of the project and the beginning of both the applications. Later on the planning is divided into the main tasks and the creation of the database, following the Agile method. Each iteration will take care of different tasks of the project and feedback on them will be given at the assessment meetings, after which new features and ideas will be implemented. The execution of the ideas is going to take up the most weeks. The last weeks are also dedicated to documentation concerning the testing and the final looks of the application and the database.

Throughout the whole project both of the application and the database will be worked on at the same time due to the connection between the three parts, because one change can affect many aspects of the project.

3.2. Time plan and milestones

In order to keep track of the project there is a gantt chart. This helps give a rough representation for the planning of the project. However, it may change in the future due to working abilities, timing and so on, but still trying to get everything done before the final deadline (week 16).

INDIVIDUAL ASSIGNMENT - GANTT CHART

TASKS	1 WEEK	2 WEEK	3 WEEK	4 WEEK	5 WEEK	6 WEEK
IDEATION DOCUMENT	until 08.09.2023					
WIREFRAMES	until 08.09.2023					
SITEMAP	until 08.09.2023					
GIT REPOSITORY	until 08.09.2023					
PROJECT PLAN		Until 22.09.2023				
URS & TEST PLAN		Until 06.10.2023				
UML CLASS DIAGRAM-STARTUP		Until 06.10.2023				
WEB APP - STARTUP		Until 06.10.2023				
WINDOWS FORMS APP - STARTUP		Until 06.10.2023				

INDIVIDUAL ASSIGNMENT - GANTT CHART

TASKS	6 WEEK	7 WEEK	8 WEEK	9 WEEK	10 WEEK	11 WEEK	12 WEEK
WELCOME PAGE	███						
MAIN PAGE	███						
DATABASE	███						
LOGIN SYSTEM	██████						
MOVIE INFO PAGE		███████					
REVIEWS		████████					
SEARCH		█████████					
DESKTOP APPLICATION	████████████████████████						
PROFILE PAGE			████████████				

INDIVIDUAL ASSIGNMENT - GANTT CHART

TASKS	11 WEEK	12 WEEK	13 WEEK	14 WEEK	15 WEEK	16 WEEK
FAVORITE PAGE	Until 03.03.2023					
TEST REPORT & TEST PLAN				Until 03.03.2023		
UNIT TESTING				Until 03.03.2023		
UML ACTIVITY DIAGRAM				Until 03.03.2023		
DATABASE DIAGRAM				Until 03.03.2023		

4. Deliverables

- Project Plan
- Paper/Digital Prototype
- Windows Forms Application
- Web application
- Documentation for the working progress
- User requirement specification
- Test Plan
- Test Report

4.1. Moscow list

Must have:	- Login system - CRUD operations - Review writing and rating giving - Manipulation of movies/shows data - Information about any show/movie in the system
Should have:	- Search engine for movies/shows - Personal profile page - Favorite list - Movie Recommendations - Delete own review - Add employees to the system
Could have:	- Other users' profiles - Watchlist
Won`t have:	- Possibility to buy movies/shows - Possibility to watch a certain movie/show

5. Constraints

Time	The time for the project is limited to 16 weeks. It is being tracked for progress and managed around every 3 weeks.

Resources	The project has to be made using Visual Studio and the given new knowledge. Has to follow the learning outcomes.
Scope	The project has to deliver two applications - Desktop App for the management and a Web App for all users. Both should have an easy to use design.
Other constraint	The project should be made using C#

6. Testing strategy and configuration management

6.1 Testing strategy

The developed software will be tested every time when there are new changes made. This will help detect all the bugs. Testing often will prevent the small bugs from becoming mistakes with bigger importance in the future of the project and interfere in the fulfilling of the requirements.

In order to keep track of all the requirements and their smooth development, a test plan will be created with different Test cases. The efficiency of the project's features will be detected and documented in the Test plan. The expected and successful result will be written in the document.

Testing the quality of the code and its performance will be done during the assessment meetings. The feedback from the tutors will be used to better the program and make it efficient, but not only during the official meetings but also during the free time in the lectures.

6.2 Testing environment and required resources

The project will approach the testing using unit testing which is going to be learned throughout the 16 weeks. This will help to test the logic used in both of the applications, make sure it folles all the functional requirements and that it manages all the constraints properly.

6.3 Configuration management

The project will be managed mainly using Git, the link for which is available in 2.1 Communication. Each change, small or big, will be uploaded to Git in order to keep track of the working time, the progress made. This helps to be up to date with the newest versions. It also provides a safe space to store the project in case of a technical issue or something else.

7. Risks

7.1 Risk and mitigation

Risk	Prevention activities	Mitigation activities
Personal/Health issues		Consulting with the teacher about it
Technical issues	Follow the presentations and the material. research well before trying something new.	Consulting with the teacher about it and try to find other solutions online0
Miscommunication	Have more frequent meetings with the teacher and ask twice if needed.	Search up online or have ask a teacher for a second explanation
Long break from working during the vacation	Create a working schedule and try to get work done no matter if little in order to now lose the workflow.	Push myself to sit down and get more work done than usual in order to catch up.
Bad time management	Create a schedule. Spend more time working on the project	Ask for more time if possible. Prioritize the project for the time left and get as much done as possible. Focus mainly on the important features.
Requirements	Follow the learning outcomes.	Review what is missed for the requirements and try to implement it.