SSD 2025 - Project Report

Stage: **S1**

Group & Team: **2.3**

Project title: **Netflix Wrapped**

Team members (*filled by PM, Team Leader*):

No	Name	Surname	Student ID	Role
1	Zofia	Wiora	268436	*PM, Team Leader*
2	Łukasz	Machnik	268456	*Team member*
3	Jakub	Włodarski	288763	*Team member*
4	Jakub	Niewiński	264337	*Team member*

1. Elaboration of application concept (F1)

1.1. Project (business) goals

Business Goal: Build a Wrapped-style website that analyzes and visualizes a Netflix user's yearly viewing habits in an engaging and shareable format.

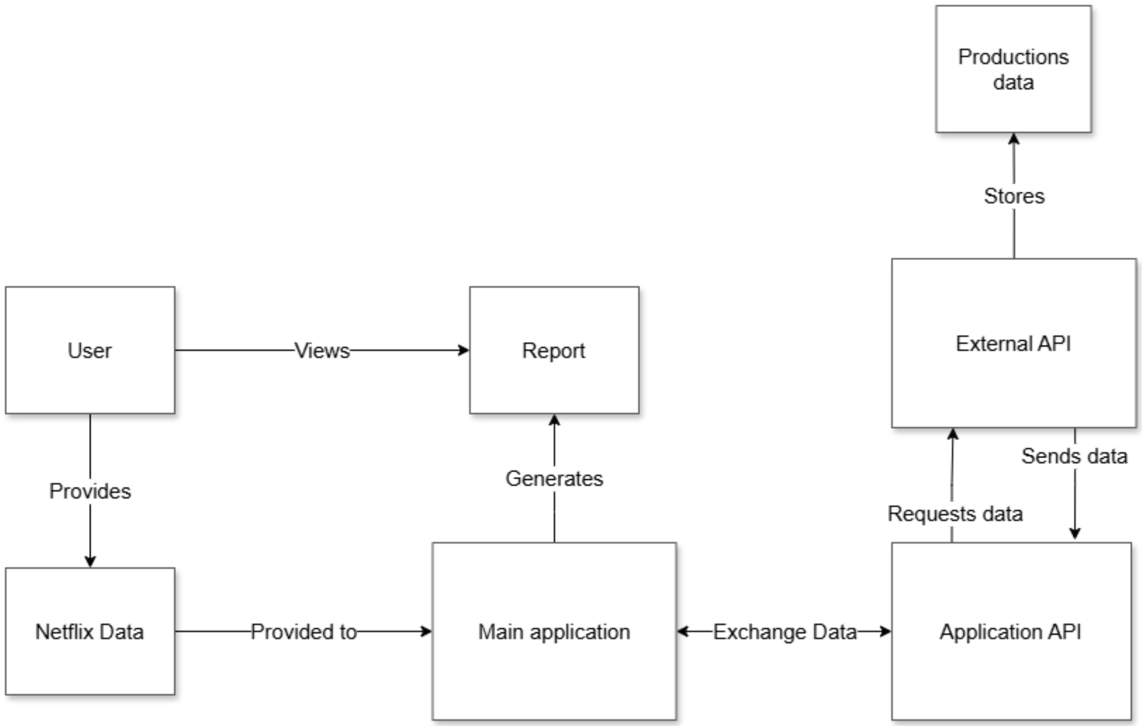
Objectives:

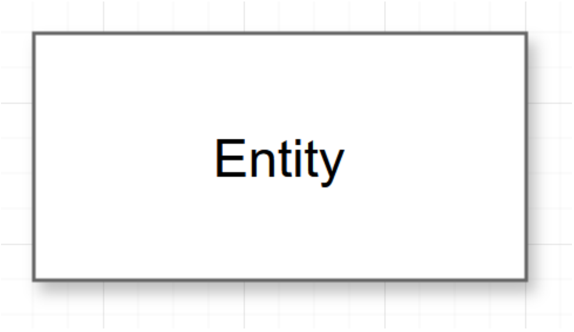
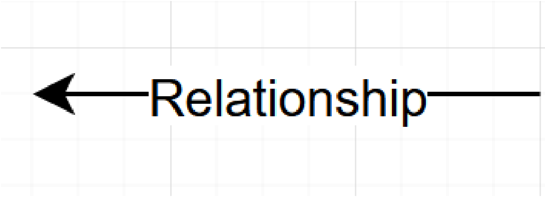
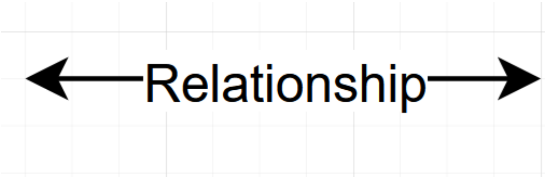
- Provide view analysis based on imported data
    - Generating viewer's summary
        - Calculating total watch time
        - Implementing different types of data visualizations
            - Bar chart
            - Pie chart
            - Timeline
    - Listing favourite movies and TV shows
- Provide a satisfying and immersive experience to users using Netflix Wrapped
    - Responsive UI
    - Conducting UX research
    - Competition analysis
    - Step-by-step instructions for uploading data from Netflix

1.2. Identification of the project's external Stakeholders

Symbol	Name	Role	Description
CST	Customers	Primary Audience	Individuals who use the website to generate and view their personalized Netflix summaries.
NFX	Netflix	Data Provider	The platform from which user data is sourced.
PSV	Project Supervisor	Client	A person who approves deliverables and evaluates the app development process and final product.
HSP	Hosting Provider	Infrastructure Provider	A service that is used to deploy and host the website.
SMP	Social Media	Sharing Channels	Platforms where Customers can share their exported summaries and invite others to use the app.
CMP	Competitors	Market Competitors	Other platforms offering similar features. They influence users' expectations of the project.
EU	European Union	Law provider	Organization that creates and ensures the application of GDPR & Data privacy laws

1.3. Domain description



Syntax	
Symbol	Description
	Entities are objects or concepts that represent important data. Entities are typically nouns such as product, customer, etc. One entity can have multiple relationships.
	Relationships are associations between or among entities. The arrow at the end signifies the direction of the relationship.
	A double-sided relationship. Both entities involved are engaged with each other

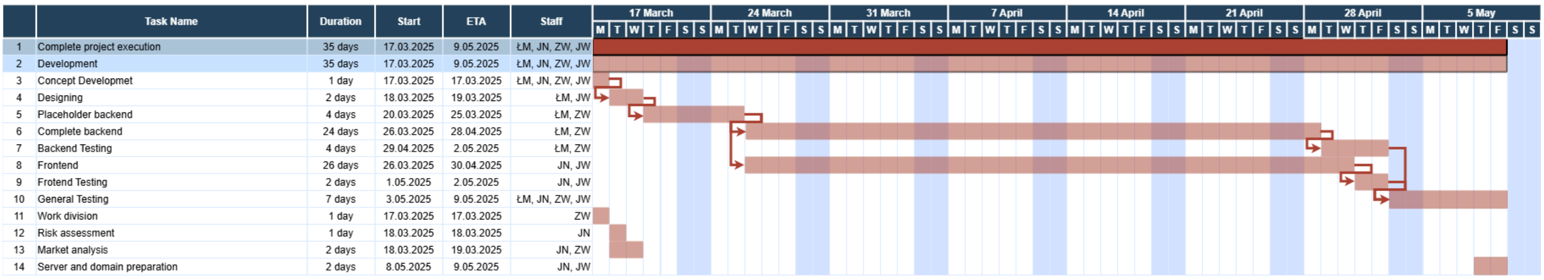
Entity	Description
User	The person using the app
Report	The visual representation of processed data
Netflix Data	The file acquired from Netflix by the user
Main application	The UI system of the app that the user interacts with
Application API	The app's mechanisms processing the data internally
External API	Stores productions' data and shares them via endpoints
Productions data	Information about the production

Relationship	Description
User *views* Report	The user views the report of their Netflix activity as calculated and presented by the app
User *provides* Netflix Data	The Netflix Data obtained by the user individually
Netflix Data is *provided to* the Main Application	The user uploads the data that was retrieved from Netflix into the app
Main Application and Application API *exchange data*	The Main Application passes the uploaded data to the API, which returns the processed data to be transformed into the displayed report by the Main Application.
Application API *requests data* from External API	The application API requests information about the entity from an external API
External API *sends data* to Application API	The external API sends the requested information to the application API.
Main Application *generates* Report	The app generates a visual report by using the data it received from the server
External API *stores* Production Data	External API stores the data that can be later provided to the application API.

Event	Description
User uploads data	The user, who possesses their data downloaded from Netflix, uploads it to the app.

Main application transfers data to the API	Main application passes the uploaded data to the application API
Data processing	The API receives data from the main application and processes it. It generates a report, which includes the user's most watched movies, most frequent genres of movies, most frequent actors appearing in watched movies, etc.
Report accessed by user	Main application displays the report to the user
Application API retrieves data about productions	After isolating the user's preferences from the data, the server retrieves information about the movies/genres/actors.

1.4. Project schedule (Gantt chart)



	Task Name	Duration	Start	ETA	Staff
1	Complete project execution	35 days	17.03.2025	9.05.2025	ŁM, JN, ZW, JW
2	Development	35 days	17.03.2025	9.05.2025	ŁM, JN, ZW, JW
3	Concept Developmet	1 day	17.03.2025	17.03.2025	ŁM, JN, ZW, JW
4	Designing	2 days	18.03.2025	19.03.2025	ŁM, JW
5	Placeholder backend	4 days	20.03.2025	25.03.2025	ŁM, ZW
6	Complete backend	24 days	26.03.2025	28.04.2025	ŁM, ZW
7	Backend Testing	4 days	29.04.2025	2.05.2025	ŁM, ZW
8	Frontend	26 days	26.03.2025	30.04.2025	JN, JW
9	Frotend Testing	2 days	1.05.2025	2.05.2025	JN, JW
10	General Testing	7 days	3.05.2025	9.05.2025	ŁM, JN, ZW, JW
11	Work division	1 day	17.03.2025	17.03.2025	ZW
12	Risk assessment	1 day	18.03.2025	18.03.2025	JN
13	Market analysis	2 days	18.03.2025	19.03.2025	JN, ZW
14	Server and domain preparation	2 days	8.05.2025	9.05.2025	JN, JW

1.5. Identification of existing or alternative solutions

1.5.1. Netflix Wrapped - Kapwing

Under the following address already exists a Netflix Wrapped: https://www.kapwing.com/netflix-wrapped. However, its features are very limited as it only shows basic statistics like the number of movies and TV shows and the best-reviewed movie watched by a user. It is very easy to use and offers a step-by-step guide on how to obtain a datasheet with needed information from Netflix. However, it is very basic and doesn't take into account, for example, if the user watched a whole episode or if he only watched the first 5 minutes. It also doesn't show some more interesting statistics, for example, how much time users spend watching Netflix.

1.5.2. Netflix Viewing Stats

Another example of similar functionality is a Google Chrome extension available under the following address: https://chromewebstore.google.com/detail/netflix-viewing-stats/bckfpnenhimfckndcceonmkhheinmkob?hl=pl&pli=1. Its main advantage is that it is extremely easy to use. A user just needs to install it and log in to Netflix in the usual way. It then shows some statistics on the Netflix website. It also offers achievements - rewards for reaching milestones such as having seen 100 movies in total. Its main problem is that it is no longer supported, so it might not work now and in the near future, so it is unreliable.

1.5.3. Netflix Wrapped - Personal-stats

Yet another example of similar functionality is the following website: https://www.personal-stats.com/netflix-wrapped/stats?origin=home. It uses more detailed data than the first website, so it also shows more interesting statistics. This is its main advantage but on the other hand, its design is very unfriendly - it looks bad and it doesn't encourage people to use it in any way.

1.6. Project context

- Application context

  The Netflix Wrapped application will use an external service called The Movie DB. It stores data regarding movies and TV series and allows other parties access to them upon request. This integration ensures that the application displays accurate and enriched data such as titles, posters, genres, ratings, release years, etc. The Netflix Wrapped will ask this service only for information about productions watched by the user.
- Technological context

  The Movie DB uses the RESTful API service for granting access to its data. Netflix Wrapped will collect data by calling endpoints accordingly.
- Organisational context

  Not applicable
- Legal context

  The project involves handling user data, so it must comply with the local legal requirements.
  - GDPR & Data privacy laws: Because the development team and expected users are operating in the EU, data processing must comply with the GDPR.
  - Intellectual property laws: Due to the name "Netflix Wrapped", the Netflix trademark needs to be researched to not violate copyright.

1.7. Technologies used in the project

Technology	Description	Justification	Key responsibilities	Technology description
Node.js	Free, open-source, cross-platform environment for creating servers, web apps, command line tools, and scripts.	It's the best tool for creating dynamic websites that the project developers have experience with.	Back-end development	https://nodejs.org
React.js	Library for web and native user interfaces, based on components.	It's a simple yet powerful tool that helps with creating good-looking websites	Front-end development	https://react.dev/
Gin	Golang web framework for creating REST APIs	This tool will simplify building API, and it's the basic Golang framework used for this purpose.	API	https://gin-gonic.com/docs/

Figma	UI Design and prototyping tool	It will be used for creating wireframes and designing the app	UI/UX Design	https://figma.com
Postman	API management tool	This tool will be used for creating API and managing endpoints	API	https://postman.com

1.8. Project risks

Identification	Probability estimation	Impact on the project	Time-frame
Inadequate skill development over time	Medium	High (promised functionalities may be not delivered on given deadline or quality issues may arise)	During development
Time management failures	High	High (poor planning or academic workload may impact quality of deliverables on deadline)	During development
Hosting cost raise	Medium	Low	After deployment
External API malfunction	Low	High (loss of the data provider)	During development and after deployment
Risks related to Netflix: - it may disallow user data export - it may bankrupt - it may encounter some malfunctions that will block the development process	Very Low	Very High	During development and after deployment
Software/hardware failures	Low	High (loss of unsaved local changes)	During development
Team miscommunication	High	Medium (can lead to misunderstandings about responsibilities and may cause delays or lower quality of the project)	During development

1.9. Project costs estimation

Item	Approximate time (h)	Rate	Total cost
Concept development	16	40 zł	640 zł
Market analysis	12	40 zł	480 zł
Design	32	40 zł	1 280 zł
Backend development	100	50 zł	5 000 zł
Frontend development	100	50 zł	5 000 zł
QA Testing	24	60 zł	1 440 zł
Server launch	16	40 zł	640 zł
Maintenance		80 zł / month	
TOTAL	300		14 480 zł + 80 zł / month