Reflection Report on Movie Recommender

Seyed Ali Mousavi

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1 Changes in Response to Feedback

This section Summarizes the changes made throughout the project in response to feedback from, the instructor, classmates, reviewers and domain expert.

1.1 SRS and Hazard Analysis

Certainly, I received numerous feedback which prompted me to make adjustments to my documents. However, I will only highlight the most significant ones here:

1. I abandoned the implementation of the ANN (Approximate Nearest Neighbor) method for collaborative filtering because it proved challenging to develop throughout the project.
2. I shifted from non-prediction approaches to rating prediction models due to their greater ease of comprehension and the improved clarity of evaluation metrics.
3. I included two more nonfunctional requirements(Understandability and Maintainability) as the Instructor (Dr. Smith) suggested.

1.2 Design and Design Documentation

1.3 VnV Plan and Report

1. I included `pytest` as an automated testing library for running unit testing.

2 Design Iteration (LO11)

I nearly achieved my intended implementation. However, I opted out of using the ANN (Approximate Nearest Neighbor) method for collaborative filtering due to its challenging development process throughout the project. Additionally, I transitioned from non-prediction approaches to rating prediction models, as they offer greater ease of understanding and clearer evaluation metrics. Also, I believe I now possess a deeper comprehension of modular coding, as I had to

ensure modularity within my code. Additionally, I've gained insight into the importance of maintaining the codebase.

3 Design Decisions (LO12)

I opted to utilize KNN (K-nearest neighbor) as an alternative to ANN. KNN operates deterministically and employs brute force, making it significantly slower than ANN. Consequently, I had to resort to a smaller dataset from MovieLens. Additionally, some of the evaluation metrics used for assessing recommendation systems are quite complex, requiring considerable time and effort to grasp. Instead, I chose simpler metrics to enhance readability for readers of my project and potential contributors.

4 Economic Considerations (LO23)

1. Is there a market for my product?

   There is definitely a market for movie recommendation systems, as streaming platforms and entertainment services are constantly looking for ways to improve user experience and engagement. However, the competition in this space is quite fierce, with many established players like Netflix, Amazon Prime, and Spotify already offering recommendation systems. To stand out, I'll need to offer a unique selling point or target a niche audience.

2. What would be involved in marketing my product?

   Marketing your product would involve various strategies such as creating a compelling website or app, optimizing it for search engines, leveraging social media channels for promotion, reaching out to potential partners or affiliates, and possibly investing in advertising campaigns. Additionally, I may need to conduct market research to understand my target audience and tailor my marketing efforts accordingly.

3. What is your estimate of the cost to produce a version that you could sell?

   The cost to produce a sellable version of my product would depend on various factors such as development resources (e.g., hiring developers, designers), infrastructure costs (e.g., hosting, server maintenance) and marketing expenses.

4. What would you charge for your product?

   Pricing your product would depend on factors such as the value proposition it offers, the pricing strategies of my competitors, the willingness of my target audience to pay, and the costs involved in producing and maintaining the product. I may consider different pricing models such as subscription-based, one-time purchase depending on my business model and target market.

5. If my product isn't something that would be sold, like an open-source project, how would you go about attracting users?

   If your project is open-source and not intended for commercial sale, attracting users would involve building a strong community around your project. This could include contributing to relevant online forums and communities, promoting your project on social coding platforms like GitHub, collaborating with other developers or organizations, creating documentation and tutorials to help users get started, and actively seeking feedback and contributions from the community.

6. How many potential users currently exist?

   There's a considerable number of e-commerce enterprises seeking to enhance their current recommendation systems, alongside numerous startups in search of cost-effective recommendation solutions. However, I must admit, I lack a concrete estimate of their numbers.

5 Reflection on Project Management (LO24)

This question focuses on processes and tools used for project management.

5.1 How Does Your Project Management Compare to Your Development Plan

Did you follow your Development plan, with respect to the team meeting plan, team communication plan, team member roles and workflow plan. Did you use the technology you planned on using?

Since my project was relatively straightforward, I didn't find it necessary to create a comprehensive development plan.

5.2 What Went Well?

What went well for your project management in terms of processes and technology?

Being new to testing technologies and GitHub for version control and collaboration on software development projects, I found that using these tools was much simpler than I had anticipated.

5.3 What Went Wrong?

What went wrong in terms of processes and technology?

At the time I don't remember anything that went wrong.

5.4 What Would you Do Differently Next Time?

What will you do differently for your next project?

I believe the most valuable experience lies in working within a team rather than individually. This presents the true test for evaluating the skills I've acquired. I look forward to having teammates in future endeavors.