NerdBlock – Deliverable 1

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***INTRODUCTION***

We are designing a database system for NerdBlock’s subscription service. NerdBlock is a fast growing, Canadian business where customers can subscribe to genres, and each month they will receive a box of collectables relating to the genres they picked. Any overstock is distributed to NerdBlock’s brick-and-mortar stores called Joe Nerds. They weren’t expecting a large influx of subscribers and didn’t invest in much infrastructure. Now they need to accommodate over 20,000 subscribers. Now they have reached out to us for assistance in supplying a system that can accommodate said influx of new subscribers.

***MISSION STATEMENT***

“Design and implement a comprehensive subscription management solution that seamlessly adapts to NerdBlock’s expanding global subscriber base, ensuring reliable performance, streamlined operations, and exceptional customer experiences across all genres.”

NerdBlock’s subscribers grew much faster than we thought, so now we urgently need a stronger and more flexible system. Our goal is to remove inefficiencies and data slowdowns, so NerdBlock can keep making customers happy without any service breaks or performance issues.

We want to give a strong, future-proof database solution that can grow smoothly, making sure data is always correct and easy to access, even if subscribers and orders keep growing in big numbers. We remain committed to using the best practices in database design, data security, and user experience. We’ll make sure the final system meets NerdBlock’s everyday operations and long-term goals. Our goal is to provide a dependable way for fans to engage with their preferred genres and letting NerdBlock process monthly orders with ease and manage overstock transfers smoothly.

***INITIAL PROJECT PLAN***

Our initial plan for the project is to gather required details from the synopsis and the client then design the scope of the project, and database. These details include external sources affecting the system and attributes the client wants to see in the tables. Then we will design diagrams around the system, such as an ERD (entity relationship diagram). To design an ERD, we need to understand the scope of the entire system and what it will do. Requiring us to design a System Diagram before more technical diagrams.

Here is a roadmap of the plan of our project for what shall be delivered and when it shall be delivered to our employers.

**Deliverable #1: Initial Planning**

* **Deadline**: January 24, 2025
* **Contents**:
  + **Group Charter Document**: Define roles and responsibilities.
  + **Draft Report**:
    - Mission Statement.
    - "Early Days" Plan (brief summary of initial steps).
    - System Boundary Diagram (high-level depiction of the business case).
    - Initial Project Plan:
      * Tasks, deadlines, dependencies, and assigned resources.

**Deliverable #2: Requirements, 3NF Schema, & Draft UI Examples**

* **Deadline**: February 21, 2025
* **Contents**:
  + **Updated Deliverable #1**: Refine based on feedback.
  + **Functional & Non-Functional Requirements**:
    - Define system functionalities and constraints.
  + **Draft 3NF Relational Schema**:
    - Normalize database design to eliminate redundancy.
  + **Entity-Relationship Diagram (ERD)**:
    - Show entities, attributes, and relationships.
  + **Application Design Drafts**:
    - Visuals for navigation, forms, and reports.
  + **Updated Project Management Details**:
    - Adjust task timelines, deadlines, and milestones.

**Deliverable #3: Final Proposal Report & Presentation**

* **Deadline**: March 28, 2025
* **Contents**:
  + **Finalized Report**:
    - Updated Deliverables #1 & #2.
    - Refined 3NF schema, ERD, and application design.
  + **Business Pitch Presentation**:
    - 10-minute non-technical presentation for the client.
    - Focus on solution benefits and visuals.
  + **Prototype Demonstration**:
    - Show core functionality (e.g., subscription management, reporting).
    - Demonstrate data committing/updating and reporting features.

**Deliverable #4: Technical Presentation, Database, & Application**

* **Deadline**: April 3, 2025
* **Contents**:
  + **Final Database & Application**:
    - Submit the complete database and functioning application.
    - Provide an active URL (if applicable).
  + **Technical Presentation**:
    - Demonstrate database and application features.
    - Explain technical design and how the system meets requirements.
  + **Final Project Management Report**:
    - Summarize completed tasks, responsibilities, and challenges.

***DEADLINES***

All of the deadlines are also available through our project management tool (Trello).

The deadlines can aslo be observed through our initial project plan.

***ASSIGNED RESOURCES***

|  |  |  |  |
| --- | --- | --- | --- |
| TASK | ASSIGNED RESOURCE | REQUIRED TOOLS | TIME ALLOCATION |
| Set Up Project Management Tool | Alexzander | Trello | 1 hour |
| Mission Statement | Muhammad Yasir Patel | Microsoft Word | 1 hour |
| Early Days Plan | Alexzander | Microsoft Word | 1 hour |
| System Boundary Diagram | All team members. | Visio | 4 hours |
| Initial Project Plan | All team members. | Microsoft Word | 3 hours |

System Boundary Diagram

