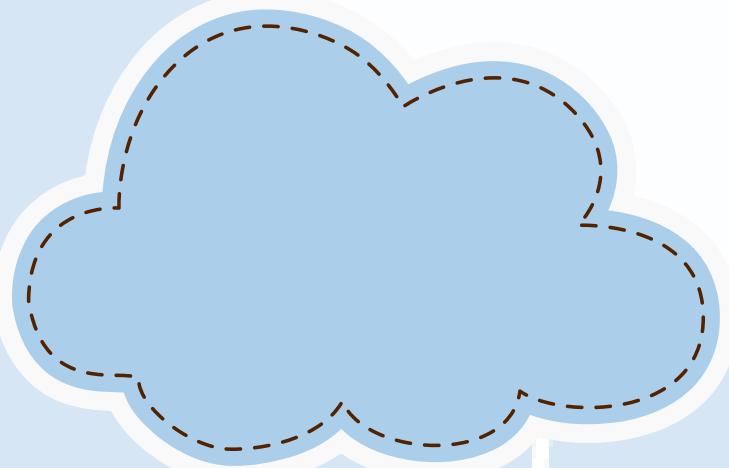
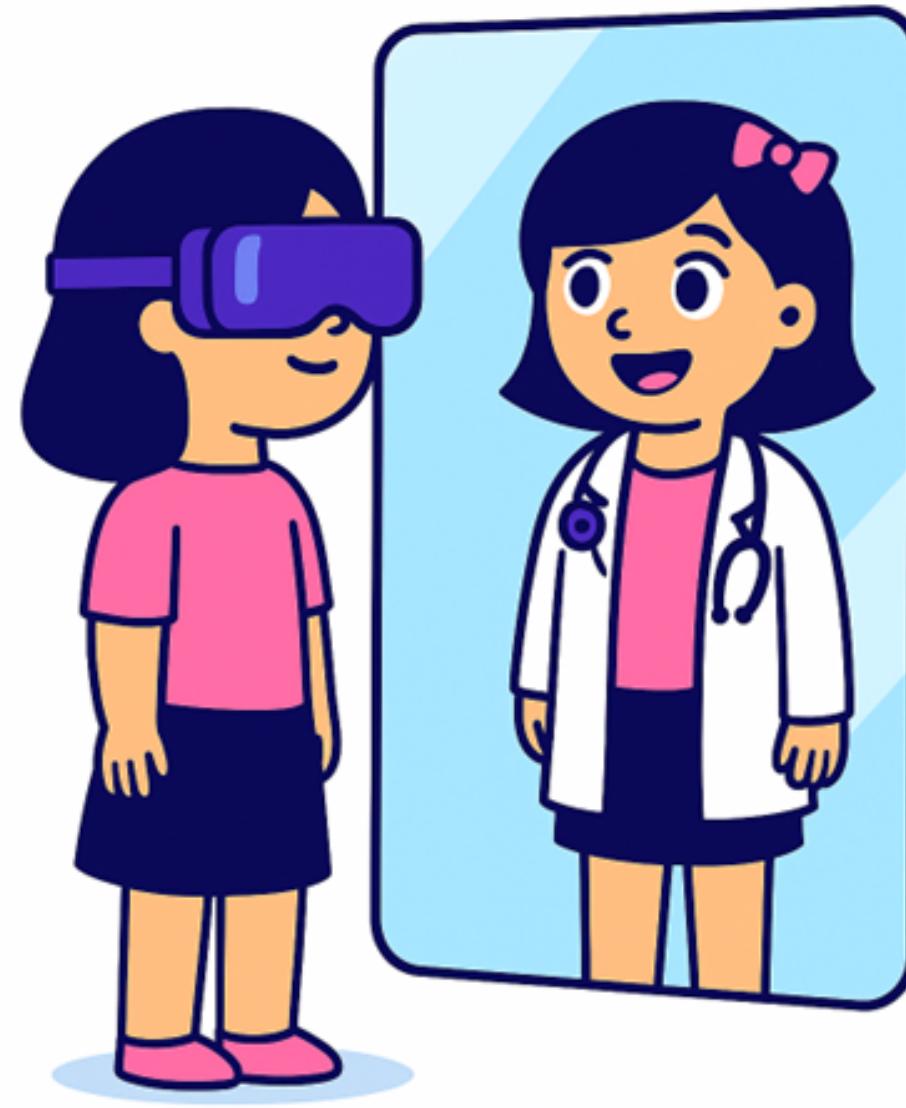


ROLETOPIA



GAME ON! (BUT MAKE IT MATTER)

What is Roletopia?

The Problem

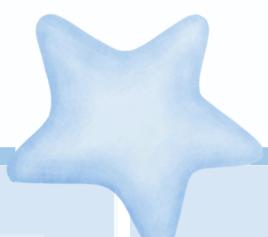
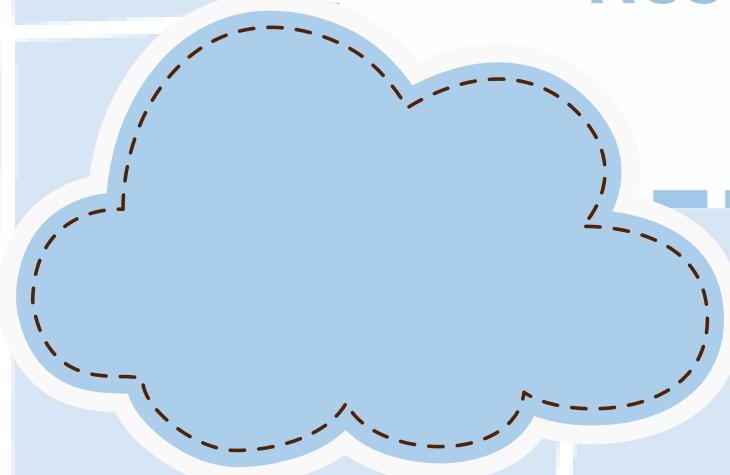
The Skills Gap: Missing Teamwork & Responsibility.

The Tech Gap: Boring Education, Ignores VR Potential.

The Solution

Method: Role-Based Co-op Missions (e.g., Doctor, Pilot).

Result: Builds essential life skills through fun, safe simulation.



REQUIREMENTS

Functional requirements

Avatar Creation

Create & customize avatar

Mode Selection

Choose VR or Mobile mode

Role Selection

Choose a professional role

Join Session

Join existing play room

Interaction

Communicate & collaborate in real-time

Create Session

Create new play room & invite others

Cooperative Missions

Complete shared team tasks

Guidance

Receive in-game instructions

Rewards System

Earn points & unlock items

Reports

Parents/teachers view performance

Non-Functional requirements

Usability

Child-friendly interface

Performance

Quick response (<2s)

Security & Safety

Data protection & restricted access

Compatibility

iOS, Android & VR supported

Scalability

Supports 500+ players

SCOPE STATEMENT

1. Scope Description:

Interactive VR and mobile platform for children (8-12 years) to create avatars, practice real-life roles (doctor, firefighter, teacher), and collaborate in missions that develop teamwork and problem-solving skills.

2. Project Deliverables:

Complete VR and mobile app with integrated points system, rewards, reporting features, and secure infrastructure

3. Acceptance Criteria:

- Functional registration, avatars, and team missions
- Accurate points and reporting system
- Smooth VR/mobile performance
- Child safety compliance

4. Project Constraints:

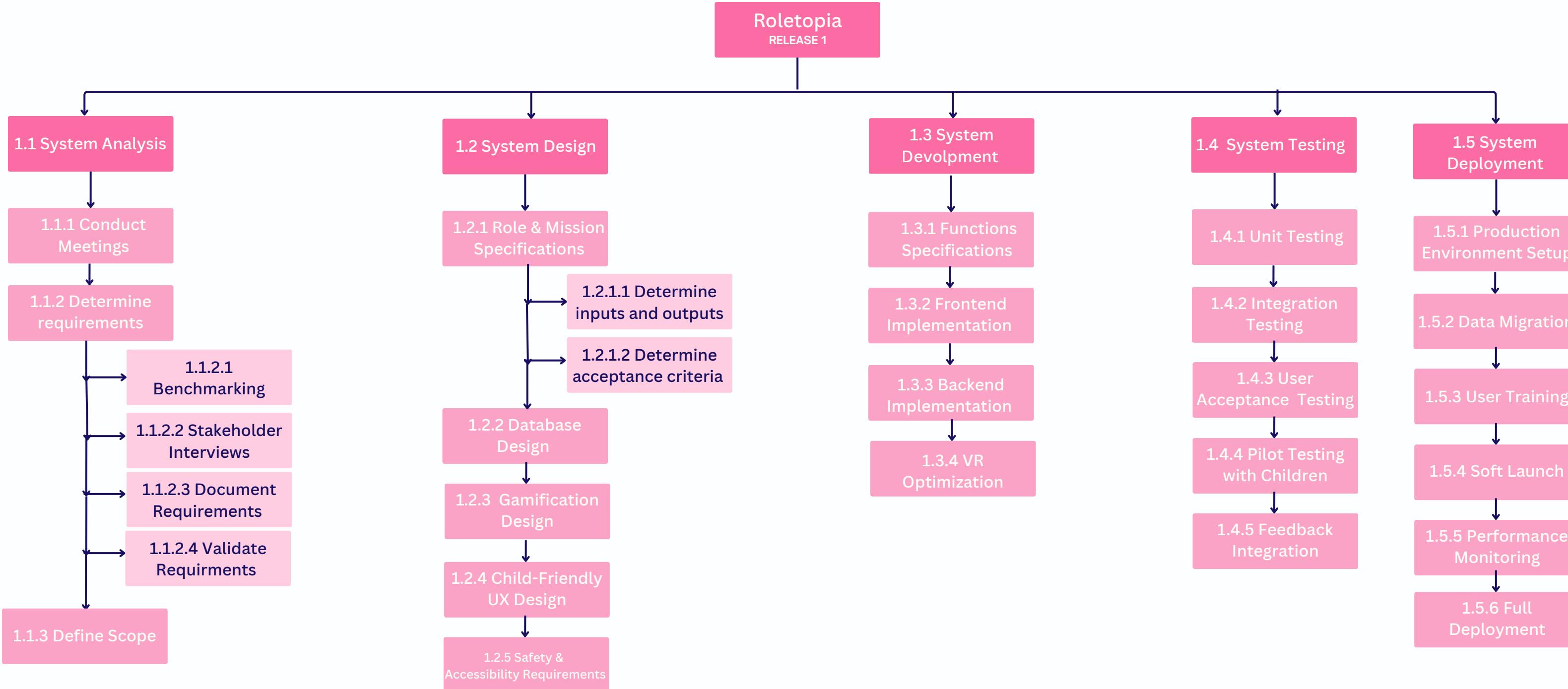
- 6-month timeline (Sept 25, 2025 – March 25, 2026)
- Requires VR headsets and stable internet
- Must comply with data security regulations

5. Project Assumptions:

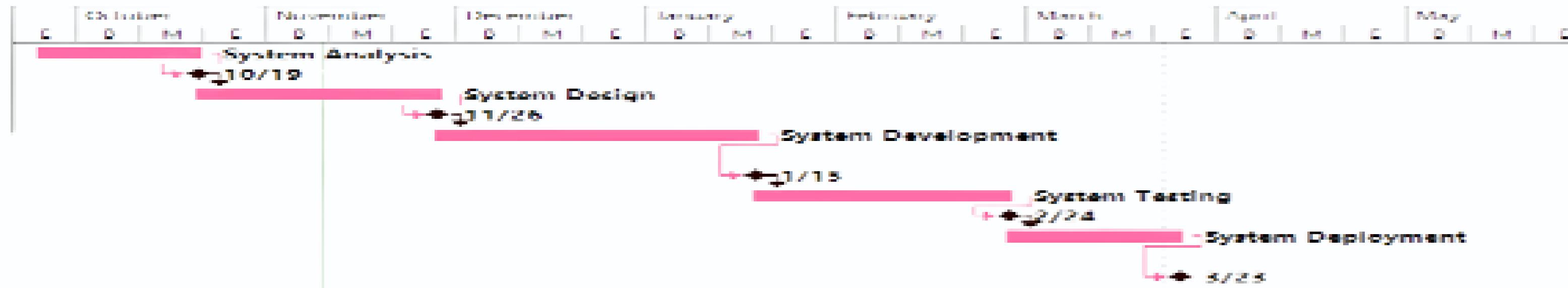
- Children have access to devices and internet
- Parents/teachers provide feedback and monitor progress
- Team has necessary development resources



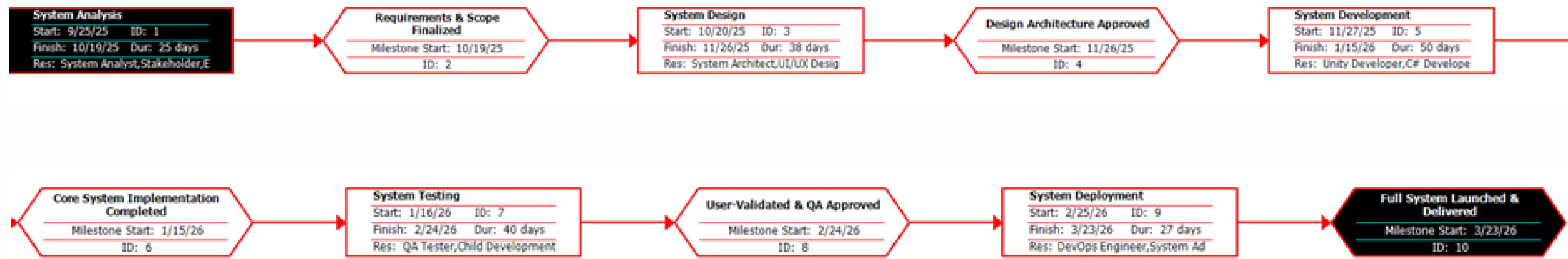
WBS



GANNT CHART



NETWORK DIAGRAM



COST ESTIMATION



Development Cost

Function Points

173 AFP

17,300 LOC

Salary for development staff $5 \times 10,000 \times$
 $6 = 300,000$ SAR

cOCOMO model

EAF = 0.42

Development Cost = $30.4 \times 10,000 =$
304,000 SAR

Difference

1.3%

304,000 SAR

Tools Cost

Software tools

1370 SAR

Hardware tools

25,500 SAR

Total tools cost

26,870 SAR



COST ESTIMATION

Total Cost

$$304,000 \text{ SAR} + 26,870 \text{ SAR} = 330,870 \text{ SAR}$$

Quality attribute

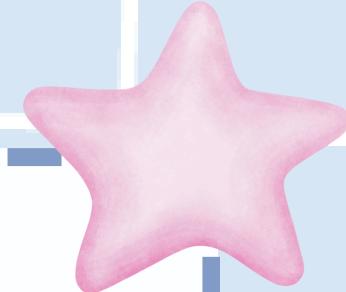
Usability

Performance

Security and Safety

Compatibility

Scalability

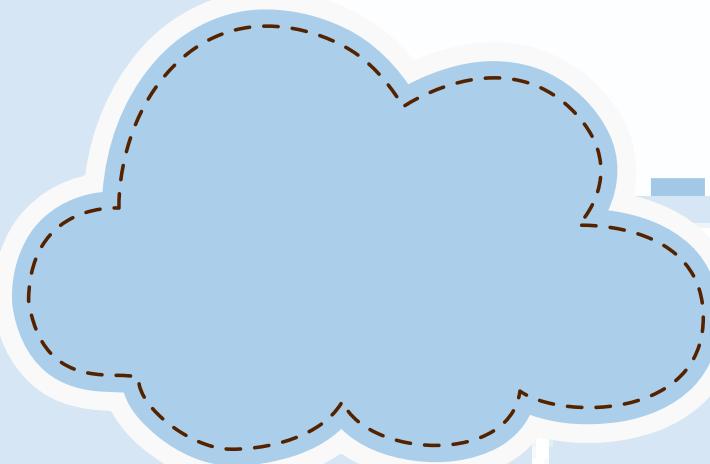


CONCLUSION

In conclusion, Roletopia provides an innovative and safe VR learning experience for children.

Across all phases, we clearly defined the project's scope, schedule, cost, and quality standards.

Our estimations confirmed that the project is realistic and achievable within the planned 6-month timeline.



THANK YOU!

Presented by:

- Rawan Alshammari
- Rama Alomair
- Ahlam Alqahtani
- Walaa Saif Aleslam
- Danyh Alotaibi

Supervised By
Dr. Rana Alkadhi

