



EAST WEST UNIVERSITY

Assignment 01

Next-Gen Shopping: Augmented Reality Meets Retail

Course Code: CSE495

Course Title: IT Project Management and Entrepreneurship

Section: 05

Submitted By,

Group: Delta

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2021-3-60-031

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Submitted to,

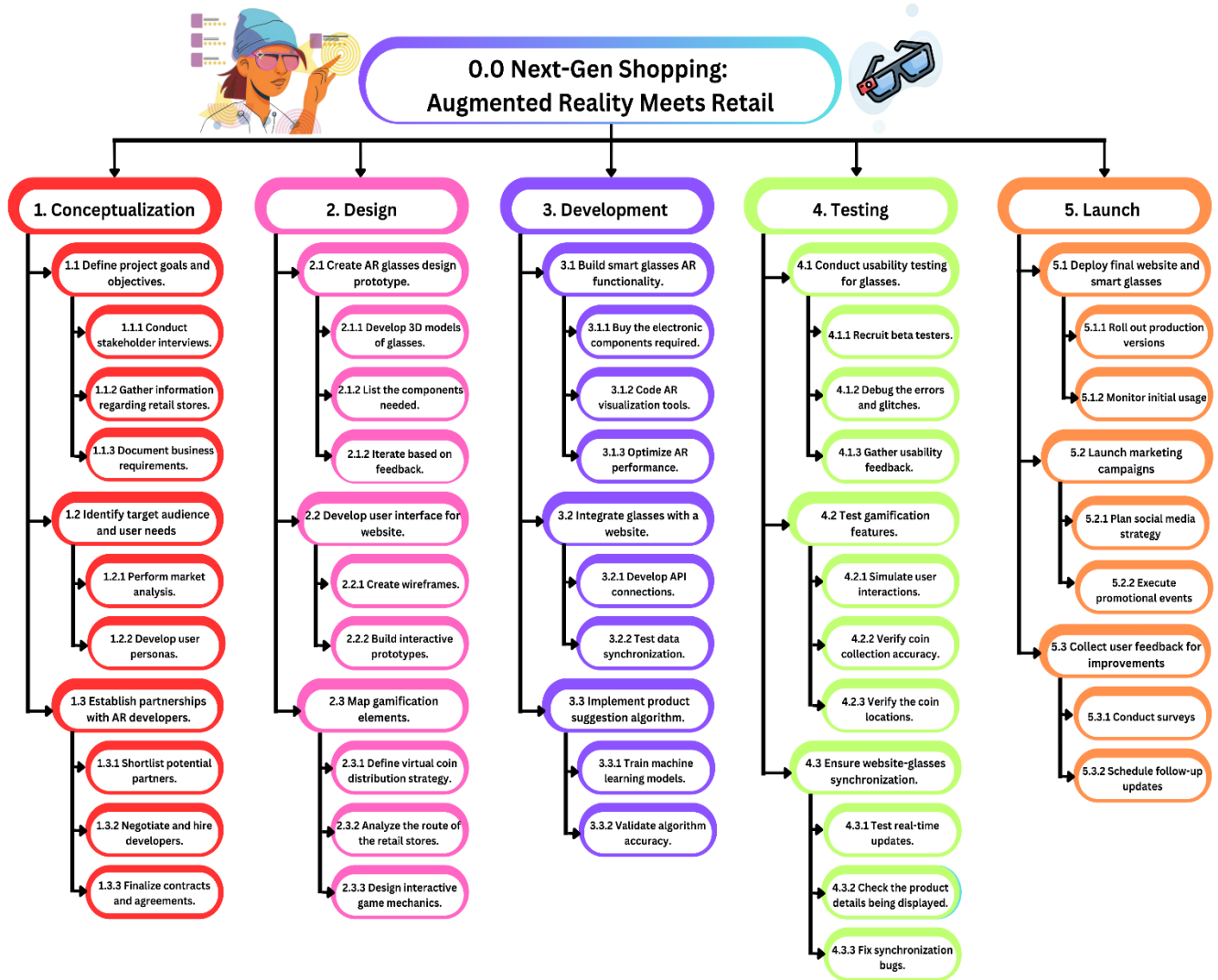
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Work Breakdown Structure:



Network Diagram:

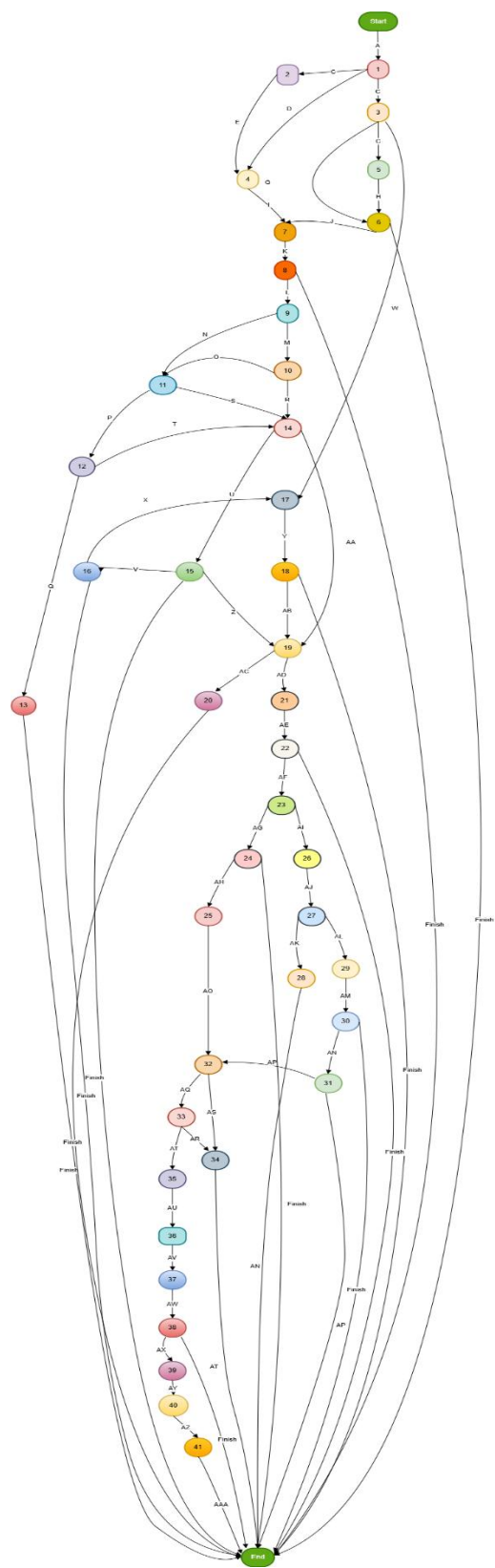
Activity Table:

<u>WBS serial</u>	<u>Task id</u>	<u>Task Description</u>	<u>Predecessors</u>	<u>Duration</u>
1.1	A	Define project goals and objectives.	-	10
1.1.1	B	Conduct stakeholder interviews.	A	5
1.1.2	C	Gather information regarding retail stores.	A	5
1.1.3	D	Document business requirements.	A,B	10

1.2	E	Identify target audience and user needs	A,C	15
1.2.1	F	Perform market analysis.	C,E	10
1.2.2	G	Develop user personas.	F	5
1.3	H	Establish partnerships with AR developers.	D,F	20
1.3.1	I	Shortlist potential partners.	H	10
1.3.2	J	Negotiate and hire developers.	I	10
1.3.3	K	Finalize contracts and agreements.	J	10
2.1	L	Create AR glasses design prototype.	K	50
2.1.1	M	Develop 3D models of glasses.	L	20
2.1.2	N	List the components needed.	K,M	15
2.1.2	O	Iterate based on feedback.	M,N	20
2.2	P	Develop user interface for website.	O	30
2.2.1	Q	Create wireframes.	P	10
2.2.2	R	Build interactive prototypes.	M,N,O,P	20
2.3	S	Map gamification elements.	R	15
2.3.1	T	Define virtual coin distribution strategy.	S	10
2.3.2	U	Analyze the route of the retail stores.	C,T	15
2.3.3	V	Design interactive game mechanics.	U	15
3.1	W	Build smart glasses AR functionality.	P,R,V	40
3.1.1	X	Buy the electronic components required.	W	15
3.1.2	Y	Code AR visualization tools.	W	30
3.1.3	Z	Optimize AR performance.	Y	20
3.2	AA	Integrate glasses with a website.	Z	30
3.2.1	AB	Develop API connections.	AA	15
3.2.2	AC	Test data synchronization.	AB	15

3.3	AD	Implement product suggestion algorithms.	AC	20
3.3.1	AE	Train machine learning models.	AD	20
3.3.2	AF	Validate algorithm accuracy.	AE	15
4.1	AG	Conduct usability testing for glasses.	AF	20
4.1.1	AH	Recruit beta testers.	AG	10
4.1.2	AI	Debug the errors and glitches.	AF, AI	20
4.1.3	AJ	Gather usability feedback.	AI	10
4.2	AK	Test gamification features.	AJ	20
4.2.1	AL	Simulate user interactions.	AJ, AL	15
4.2.2	AM	Verify coin collection accuracy.	AL	10
4.2.3	AN	Verify the coin locations.	AM	10
4.3	AO	Ensure website-glasses synchronization.	AA, AN	20
4.3.1	AP	Test real-time updates.	AO	10
4.3.2	AQ	Check the product details being displayed.	AO, AP	10
4.3.3	AR	Fix synchronization bugs.	AP	10
5.1	AS	Deploy final website and smart glasses	AR	15
5.1.1	AT	Roll out production versions	AS	10
5.1.2	AU	Monitor initial usage	AS, AT	20
5.2	AV	Launch marketing campaigns	AU	20
5.2.1	AW	Plan social media strategy	AV	10
5.2.2	AX	Execute promotional events	AV	10
5.3	AY	Collect user feedback for improvements	AW	15
5.3.1	AZ	Conduct surveys	AZ	10
5.3.2	AAA	Schedule follow-up updates	AZ	10

Network Diagram:



Project Charter

Project Organization

Project Title	Next-Gen Shopping: Augmented Reality meets Retail		
Project Manager	Tasfia Tahsin Annita	Project Sponsor	Deepak Chandra Roy
Project Start Date	01/11/2024	Project End Date	[To be determined]

Business need

The project aims to achieve a revolutionized retail shopping experience by fusing augmented reality (AR) and personalized shopping assistance. The customers are going to experience an engaging, uninterrupted and interactive environment with AR-driven product visualization and gamified discounts, ultimately boosting both customer satisfaction and retail sales.

Key Stakeholders

Name	Department	Internal/External
Retail Shop Owners	Retail	External
Customers Utilizing Smart Glasses	Retail	External
AR Software Developers	CSE	Internal
Marketing and Analytics Teams	Marketting	Internal

Project Team

Name	Department	ID	Role
Tasfia Tahsin Annita	CSE	2021-3-60-031	Project Manager
B. M. Shahria Alam	CSE	2021-3-60-016	Developer
Rafsun Islam Taskin	CSE	2021-3-60-024	Designer
A.B.M. Ilman Farabi	CSE	2021-3-60-111	QA Tester

Project Overview

Next-Gen Shopping: Augmented reality meets retail project aims to bring revolution to the retail experience by integrating augmented reality and personalized shopping assistance. Customers will get an engaging and uninterrupted environment with interactive product visualizations and gamified discounts, boosting both satisfaction and sales.

Success Metrics

Owner	Goal	How will we measure?
Development Team	Achieve 20% sales increase	Sales analytics from the website
QA Team	Ensure 90% system reliability	User feedback and bug reports
Marketing Team	Drive 30% in-store engagement	Foot traffic and interaction rates

Scope of Work

In-Scope	
Owner/Team	Description
Development Team	Development of Smart glasses' AR application
Integration Team	Website with detailed product visualization and analytics
Gamification Team	Integration of gamified elements for customer engagement

Out of Scope	
Owner/Team	Description
Hardware Team	Developing Physical retail space hardware
Third-Party Integration Team	Integration with third-party e-commerce platforms

Deliverables

Development Team	
Dates	Event
Within 3rd Month	AR glass prototype completion

Integration Team	
Dates	Event
Within 4th Month	Website and glasses integration

QA Team	
Dates	Event
Within 6th Month	Gamification Features Testing

Dependencies

Assumptions
Availability of AR hardware from external vendors.
Timely development of the website and backend integration.
Collaboration with marketing teams for promotional campaigns.
Feedback from beta testers for refining the product.
Support from retail partners to ensure seamless integration of product details.

Financials

Allocated Budget	Date of Allocation	Revised Budget
1,000,000/- (Ten Lakh BDT)	05/11/2024	[To be determined]

Milestones

Duration	Event	Target Completion Date	Actual Date
Month 1	Requirement Gathering	05/12/2024	02/12/2024
Month 3	Prototype design and development	05/02/2025	
Month 6	User Testing and Feedback	05/05/2025	
Month 9	Final Product launch	05/08/2025	

Risks & Issues

Potential Risk	Perceived Impact	Mitigation Strategy
AR Hardware Availability	High	Pre-order Critical components early
Budget Constraints	Medium	Secure additional funding sources
Limited User Engagement	High	Design interactive tutorials

Sign-Off

Approved By	Date	Name
Project Sponsor	05/11/2024	Deepak Chandra Roy
Project Manager	05/11/2024	Tasfia Tahsin Annita