AUCSY (ONLINE AUCTION SYSTEM)

REAL-TIME AUCTION EXPERIENCE

TEAM MEMBERS & FACULTY

TEAM MEMBERS

Md. Saiful Islam

2022-3-60-045

Ayon Adhikary

2022-3-60-137

Shanghita Naha Sristy

2022-3-60-311

Umme Mukaddisa

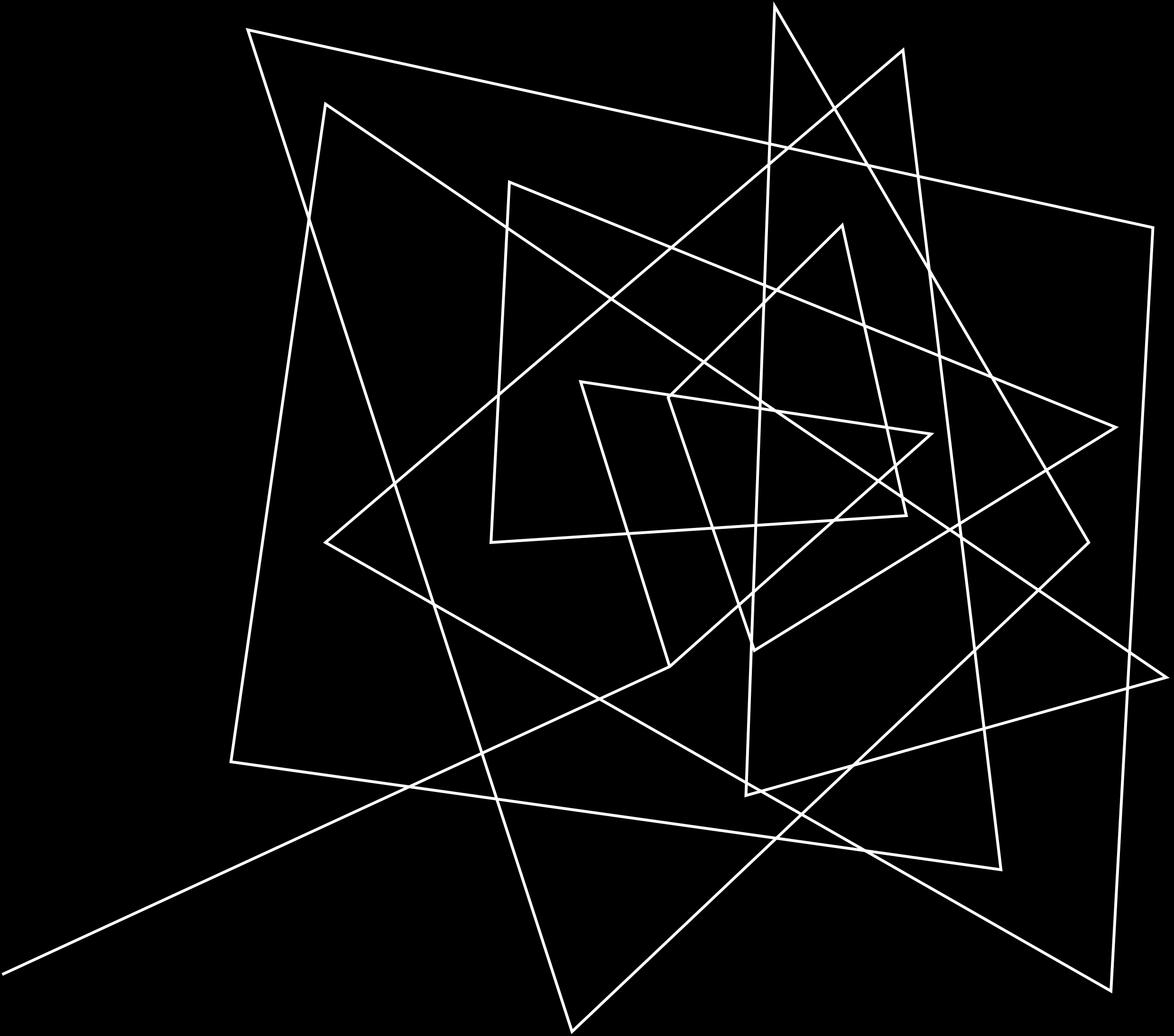
2022-3-60-317

DR. SHAMIM H RIPON

PROFESSOR

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

TABLE OF CONTENT



INTRODUCTION

OUR PROJECT IS A REAL-TIME AUCTION PLATFORM FOR ANDROID THAT ALLOWS USERS TO BID, BUY, AND SELL ITEMS SEAMLESSLY. DESIGNED TO ENSURE FAIRNESS, SECURITY, AND TRANSPARENCY, THE SYSTEM INCORPORATES LIVE BIDDING AND AUTOMATED BID MANAGEMENT, ENABLING A COMPETITIVE ENVIRONMENT FOR BOTH BUYERS AND SELLERS. THE APP IS BUILT USING FLUTTER & DART FOR CROSS-PLATFORM SUPPORT, FIREBASE FOR REAL-TIME DATABASE AND AUTHENTICATION, AND SUPABASE FOR MEDIA STORAGE. WITH AN INTUITIVE USER INTERFACE AND REAL-TIME NOTIFICATIONS, USERS CAN PARTICIPATE IN AUCTIONS EFFORTLESSLY, TRACK BID HISTORY, AND RECEIVE UPDATES ON AUCTION STATUS. THE PLATFORM ENSURES AN ENGAGING AND EFFICIENT AUCTIONING EXPERIENCE FOR ALL USERS.

WORKPLACE AND TOOLS

- Flutter & Dart – For cross-platform app development
- Android Studio – Integrated development environment (IDE)
- Firebase – For real-time database, authentication, and cloud functions
- Supabase – For Storing media files
- Git & GitHub – For version control & collaboration

REQUIREMENTS

- **User Authentication:** Sign-up, login, and verification
- **Auction System:** Create, join, and bid on auctions in real-time
- **Real-time Bidding:** Live updates on bid activity
- **Admin Panel:** Manage auctions, users, and reports

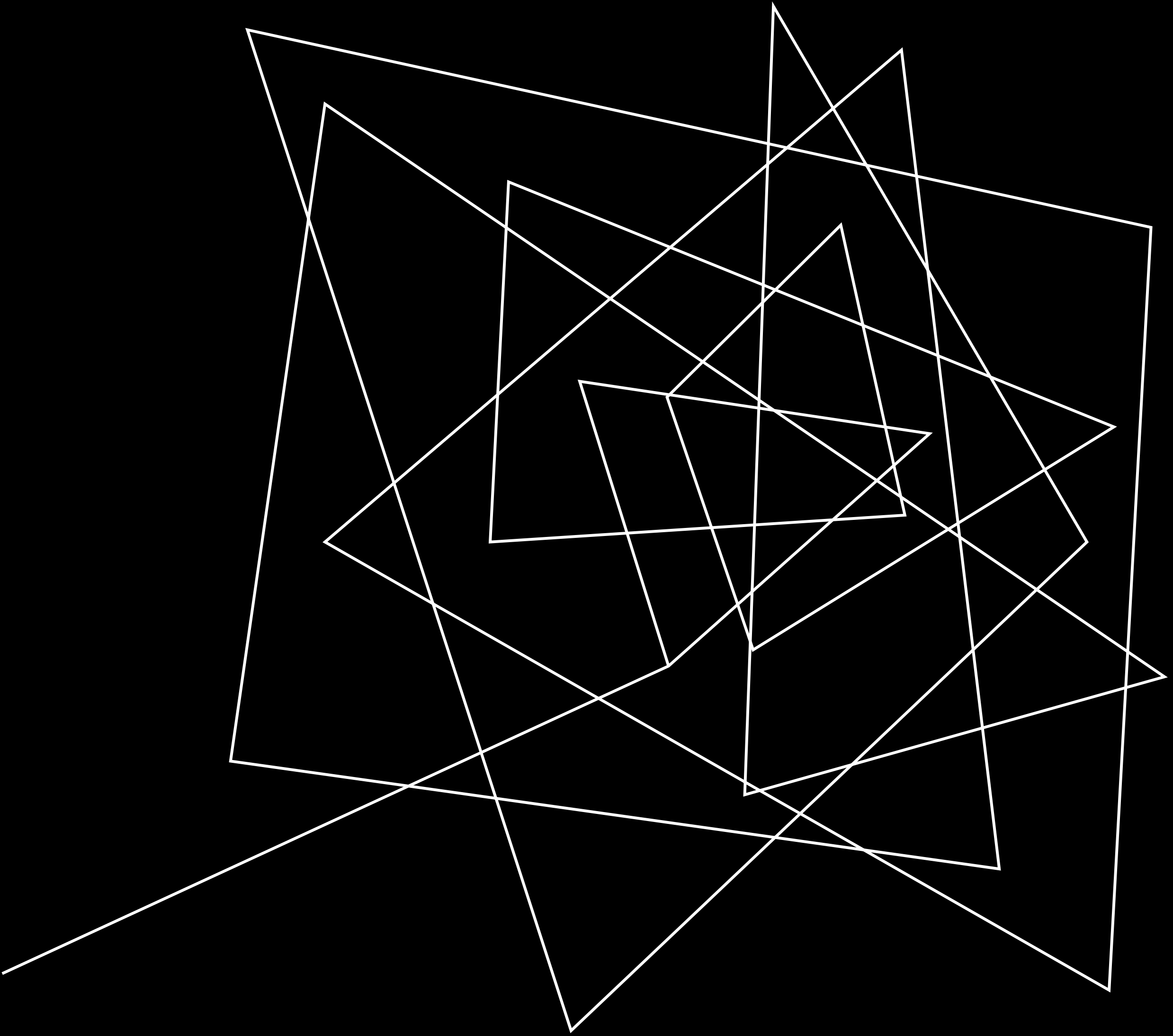
FEATURES

- **Live Bidding System** – Users can place real-time bids on items.
- **Auction Timer** – Countdown timer for each auction, ensuring fairness.
- **Bid History** – Display previous bid
- **Bid Increment Rules** – Minimum bid increments to avoid unfair bidding.
- **Reserve Price** – Sellers can set a minimum price before the item is sold.
- **Auction End Notifications** – Alerts for bidders when an auction ends, whether they won or lost.
- **Auction Previews** – Upcoming auctions are displayed before they go live.

FEATURES

- **User Registration/Login** – Email, phone number, or social media login.
- **User Profile** – Manage personal details, payment methods, and preferences.
- **Easy Item Listing** – Sellers can upload images, descriptions, and set prices.
- **Multi-Auction Support** – Allow multiple auctions to run simultaneously.
- **Admin Dashboard** – Manage auctions, users, and disputes.
- **Real-Time Auction Insights** – Live statistics on bid activity, competing bidders, and trending auctions.
- **Transaction History** – Users can view past purchases and bids.

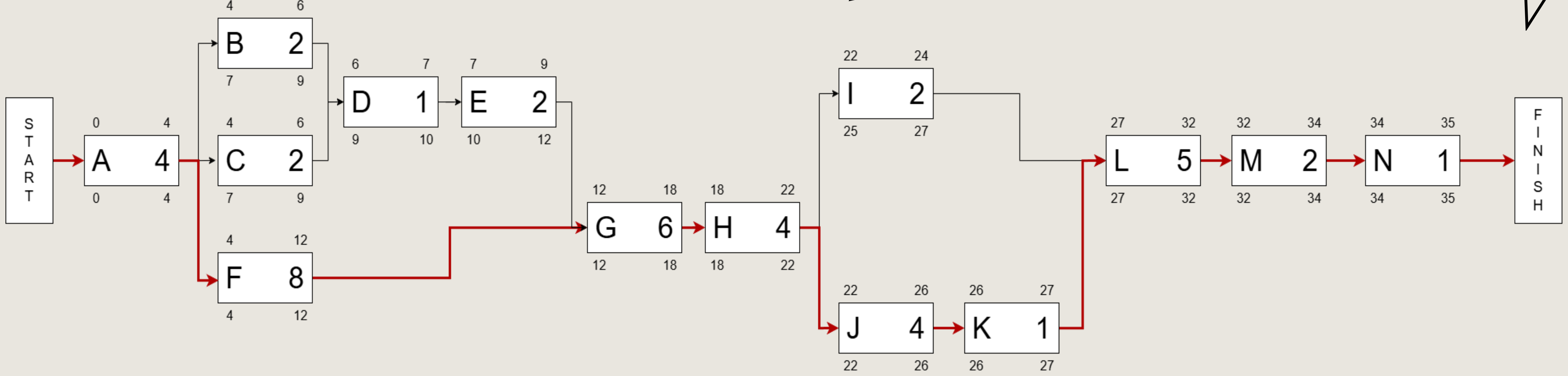
PROJECT SCHEDULING USING CPM



PROJECT TASKS WITH DURATION AND DEPENDENCY

Task ID	Task	Predecessor	Duration(Days)
A	Requirement Gathering & Analysis	-	4
B	Backend server configure and setup	A	2
C	Class models design	A	2
D	Authentication & Authorization	B,C	1
E	User profile configuration system	D	2
F	UI Design	A	8
G	Admin dashboard & control panel	F,E	6
H	Auction request and deployment system	G	4
I	Auction scheduling system	H	2
J	Bidding system	H	4
K	Bidding result generation	J	1
L	Implementation of additional features	I,K	5
M	Testing & Debugging	L	2
N	Deployment	M	1

CPM DIAGRAM



START
A 4
0 4
0 4
B 2
4 6
7 9
C 2
4 6
7 9
F 8
4 12
4 12
D 1
6 7
9 10
E 2
7 9
10 12
G 6
12 18
12 18
H 4
18 22
18 22
I 2
22 24
25 27
J 4
22 26
22 26
K 1
26 27
26 27
L 5
27 32
27 32
M 2
32 34
32 34
N 1
34 35
34 35
FINISH

CALCULATING SLACK/FLOAT

Task ID	ES	EF	LS	LF	Total Float	Free Float
A	0	4	0	4	0	0
B	4	6	7	9	3	0
C	4	6	7	9	3	0
D	6	7	9	10	3	0
E	7	9	10	12	3	3
F	4	12	4	12	0	0
G	12	18	12	18	0	0
H	18	22	18	22	0	0
I	22	24	25	27	3	3
J	22	26	22	26	0	0
K	26	27	26	27	0	0
L	27	32	27	32	0	0
M	32	34	32	34	0	0
N	34	35	34	35	0	0

FINDINGS AND OPTIMIZATIONS.

Critical Path

- From the CPM we get,

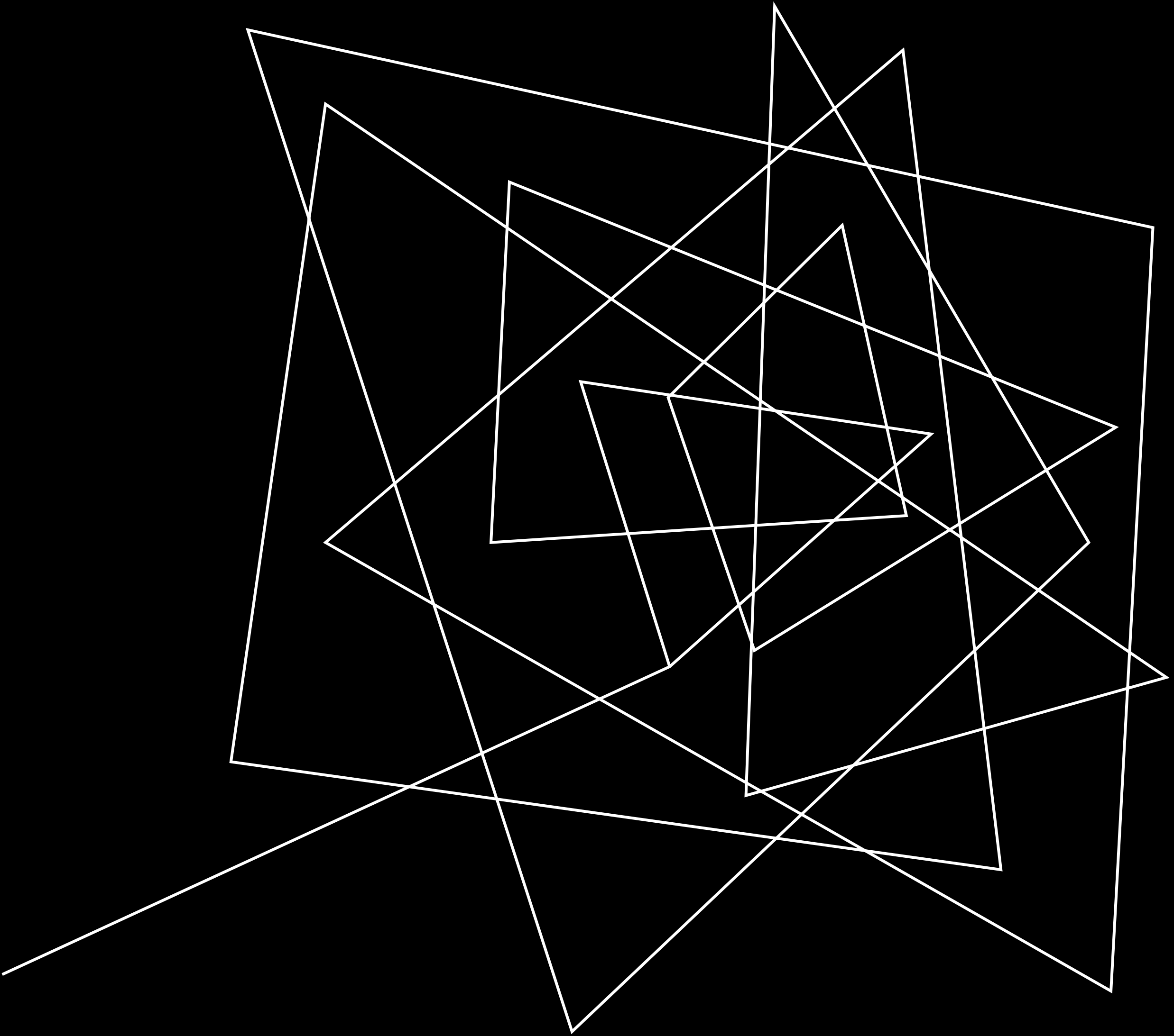
  Critical Path : A, F, G ,H , J, K , L, M, N

Optimization

schedule optimization can be achieved by reducing the duration of critical tasks and managing resources efficiently. Shortening critical tasks through **crashing** (adding resources) or **fast-tracking** (performing tasks in parallel) can help minimize project duration.

IMPORTANCE OF CRITICAL PATH

The Critical Path is essential for the Live Auction System project, as it determines the shortest project duration by identifying the longest sequence of dependent tasks. It helps in prioritizing key activities, optimizing resources, managing risks, and ensuring timely completion. Delays in critical path tasks directly impact the project deadline.

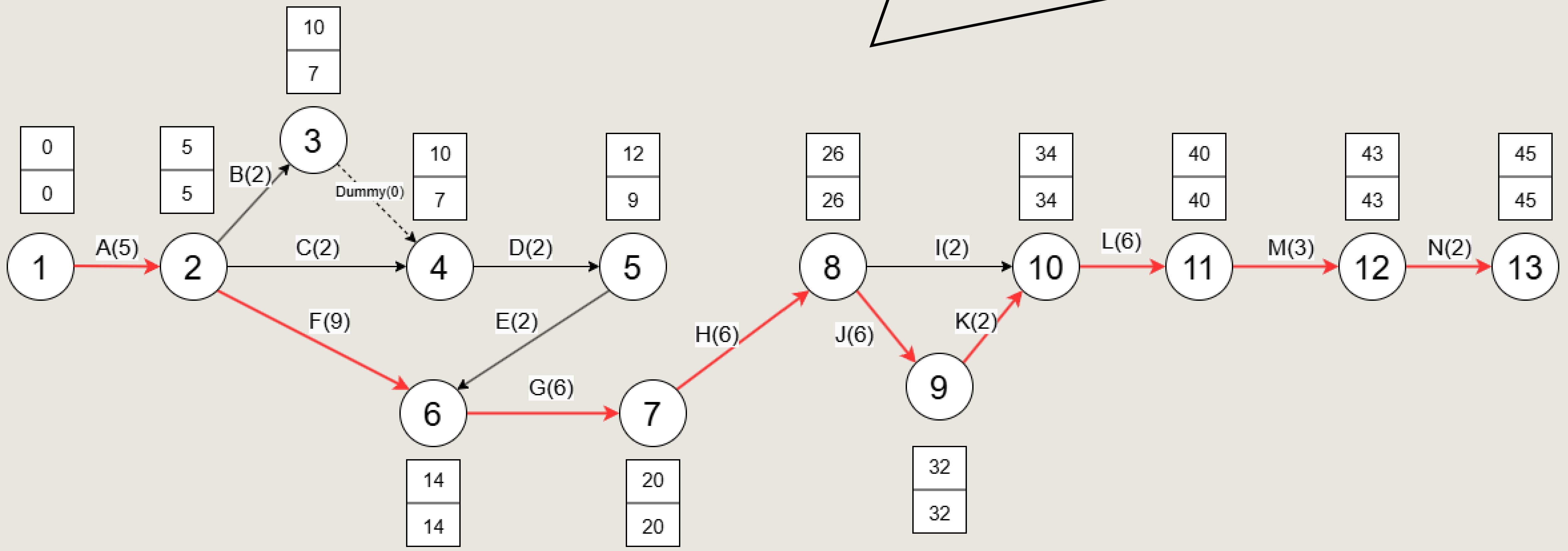


PROJECT SCHEDULING USING PERT

PROJECT TASKS WITH DURATION AND DEPENDENCY

Task ID	Task	Predecessor	Optimistic (to)	Most Likely (tm)	Pessimistic (tp)
A	Requirement Gathering & Analysis	-	3	4	6
B	Backend server configure and setup	A	1	2	3
C	Class models design	A	1	2	3
D	Authentication & Authorization	B,C	1	1	2
E	User profile configuration system	D	1	2	2
F	UI Design	A	6	8	12
G	Admin dashboard & control panel	F,E	4	6	8
H	Auction request and deployment system	G	3	4	6
I	Auction scheduling system	H	1	2	3
J	Bidding system	H	3	4	5
K	Bidding result generation	J	1	1	2
L	Implementation of additional features	I,K	4	5	8
M	Testing & Debugging	L	2	2	4
N	Deployment	M	1	1	2

PERT DIAGRAM



EXPECTED TIME (TE), AND PROBABILITY

Task ID	Predecessor	Optimistic (to)	Most Likely (tm)	Pessimistic (tp)		
A	-	3	4	6	(3+4*4+6)/6=5	0.25
B	A	1	2	3	2	0.11
C	A	1	2	3	2	0.11
D	B,C	1	1	2	2	0.00078
E	D	1	2	2	2	0.00078
F	A	6	8	12	9	1
G	F,E	4	6	8	6	0.44
H	G	3	4	6	6	0.25
I	H	1	2	3	2	0.003
J	H	3	4	5	6	0.11
K	J	1	1	2	2	0.027
L	I,K	4	5	8	6	0.44
M	L	2	2	4	3	0.11
N	M	1	1	2	2	0.027

CALCULATIONS

Expected Project Length : A-F-G-H-J-K-L-M-N

Critical Path: 1-2-6-7-8-9-10-11-12-13

Project Length Variance = 2.654

Project Length Standard Deviation = 1.62

Calculating the standard normal variable

Z = (Ts-Te)/6

Where,

Ts – the schedule time to complete the project

Te – Normal expected project length

σ– Expected standard deviation of the project

IMPORTANCE OF PERT

PERT (Program Evaluation and Review Technique) is a project management tool used to plan and schedule complex tasks. It estimates task durations using Optimistic, Pessimistic, and Most Likely times, helping identify the critical path. PERT improves efficiency, resource allocation, and risk management. It is widely used in R&D, construction, and software development to handle uncertainty and streamline workflows. By predicting delays and optimizing schedules, PERT ensures timely project completion and better decision-making. This technique enhances coordination, reduces bottlenecks, and increases overall project success, making it essential for managing large-scale and uncertain projects effectively.

FINDINGS AND OPTIMIZATIONS

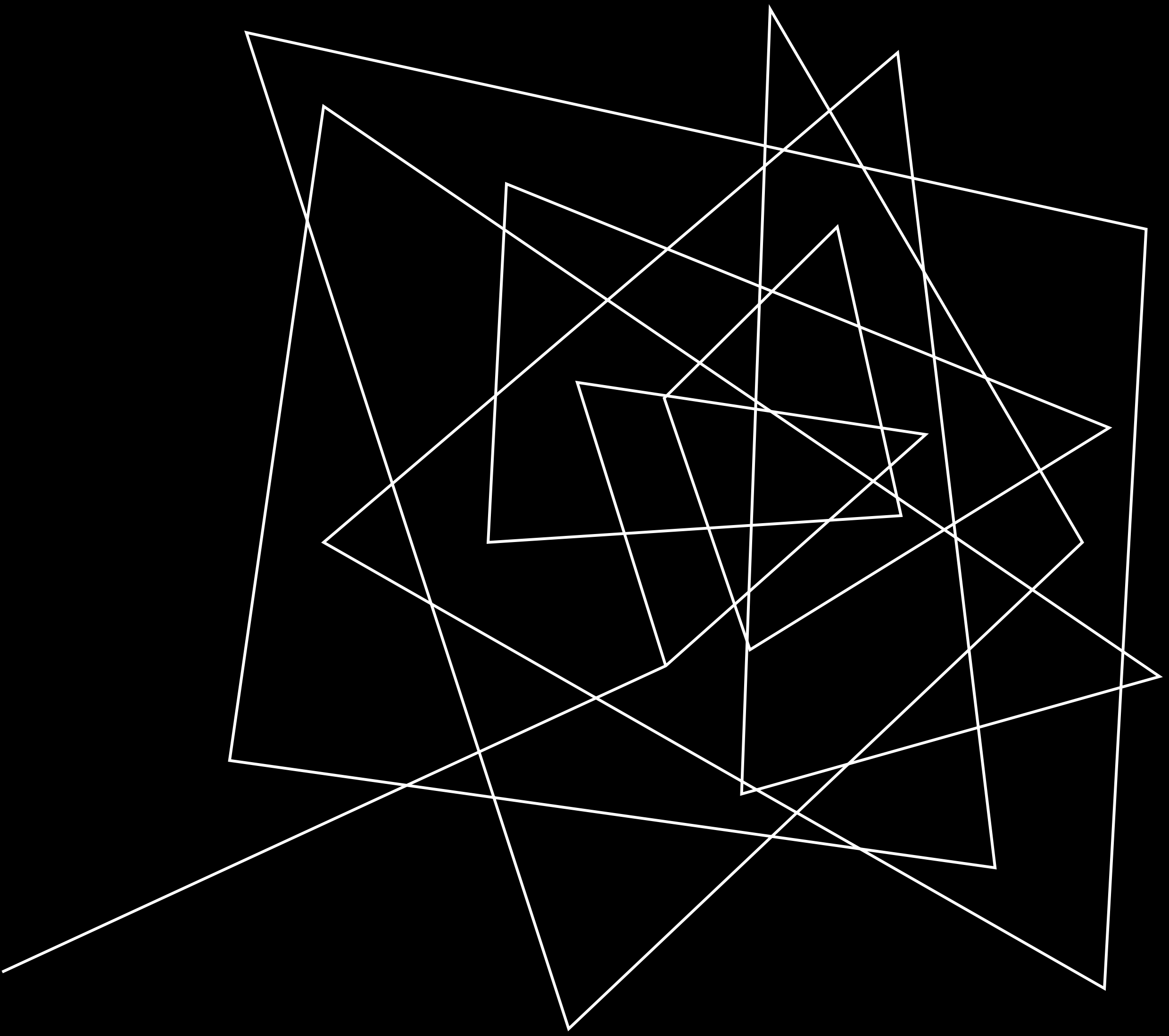
Critical Path

- From the PERT Diagram,

  Critical Path : 1-2-6-7-8-9-10-11-12-13

Optimization

To optimize the Live Auction System with PERT, we focus on critical path tasks, allocate resources efficiently, and apply fast-tracking or crashing to minimize delays. We add buffer time for high-risk tasks, monitor progress in real-time, and automate testing and deployment for improved efficiency and timely completion.



SYSTEM ACTIVITY

LIST OF ACTIVITY AND EVENTS

View Home-Page

- View all auction
  - Search
- View active
- View ended
- View upcoming
- View profile
- Add request
- View Side-menu
  - View my items
  - Private room
    - Create room
    - Join room
  - Support
  - Logout

LIST OF ACTIVITY AND EVENTS

Login

- User login
- Admin login

Sign up

View single item

- Place bid
- Ask ai

Add Request

- Create auction item
- Submit

Create private room

- Create room
- add item

Join private room

- Authentication
- View item
- Place bid

LIST OF ACTIVITY AND EVENTS

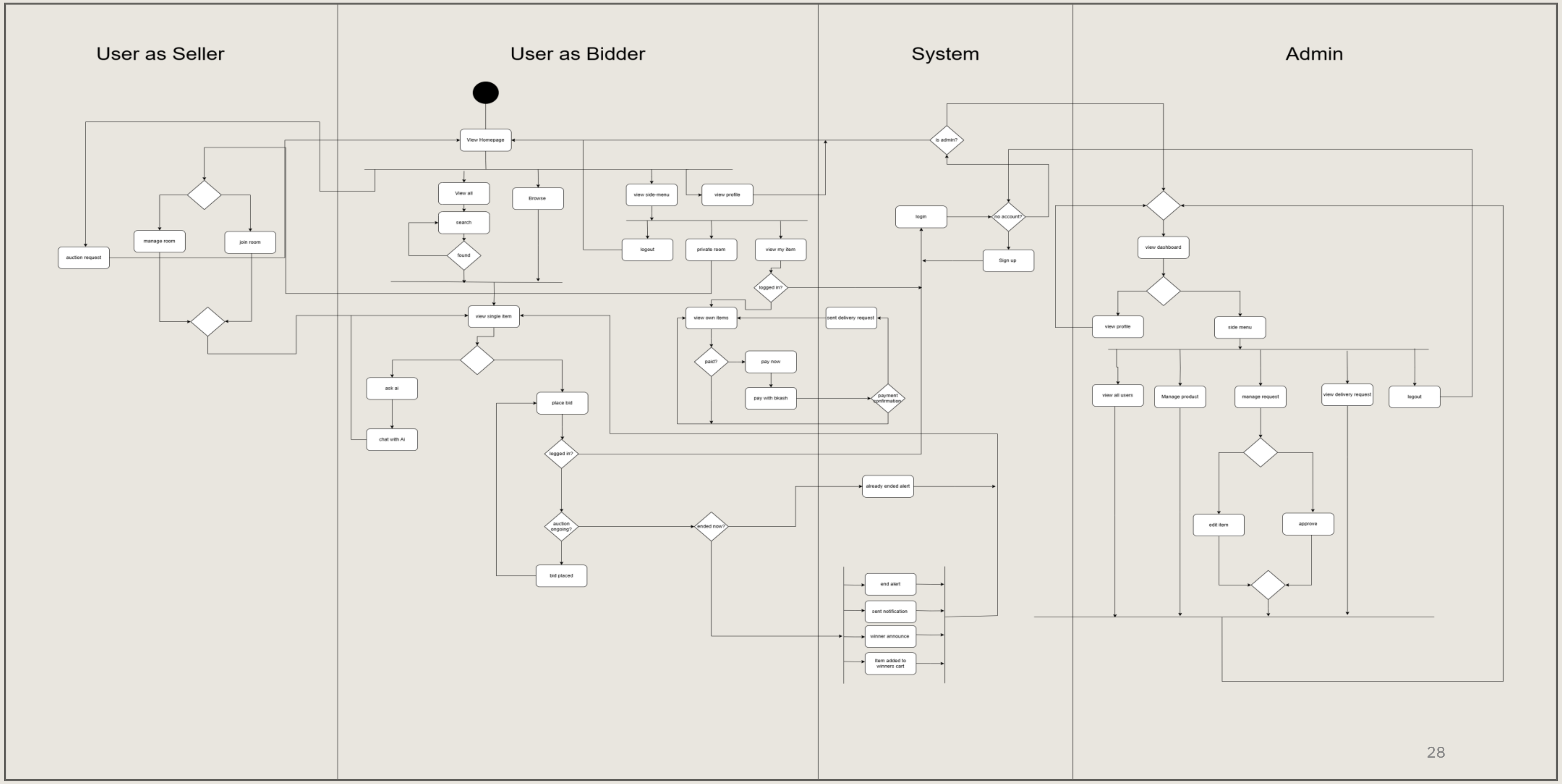
View my item

- Pay now

Admin login

- View Dashboard
- View profile
- Side menu
  - View all users
  - View all products
    - Delete item
    - Edit item
  - View private rooms
  - View delivery request
  - View auction request
    - Approve
    - cancel
  - logout

ACTIVITY DIAGRAM



EXPLANATIONS OF DECISIONS, FORKS, JOINS, AND SWIMLANES

swimlanes

Swimlanes divide the activities based on different **actors or system components**. In this diagram, swimlanes include:

1. **Guest**
2. **User**
3. **Admin**
4. **System**

Each lane represents the responsibility area of that entity.

Decisions (Diamonds)

Decision nodes represent **branches in control flow** based on conditions (yes/no or true/false). Some examples in the diagram:

- **Login?** → Checks if a user is logged in.
- **Already exists?** → Checks if the user already has an account.
- **Valid user?** → Validates user credentials.
- **Delivery required?** → Determines if a delivery is needed.
- **Auction expired?** → Checks if an auction has ended.

Each decision node leads to different paths based on the outcome.

EXPLANATIONS OF DECISIONS, FORKS, JOINS, AND SWIMLANES

Forks(Horizontal Bars Splitting into Multiple Paths)

A **fork** splits one flow into multiple **parallel actions**. For example:

•After signing in, users may have multiple options like view profile, view my item, or place a bid.

Though explicit fork bars may not be clearly visualized (i.e., thick horizontal bars), parallel paths imply a fork.

Joins (Multiple Paths Converging to One)

A **join** synchronizes multiple actions into one flow. Similar to forks, they may be visually implied. For instance:

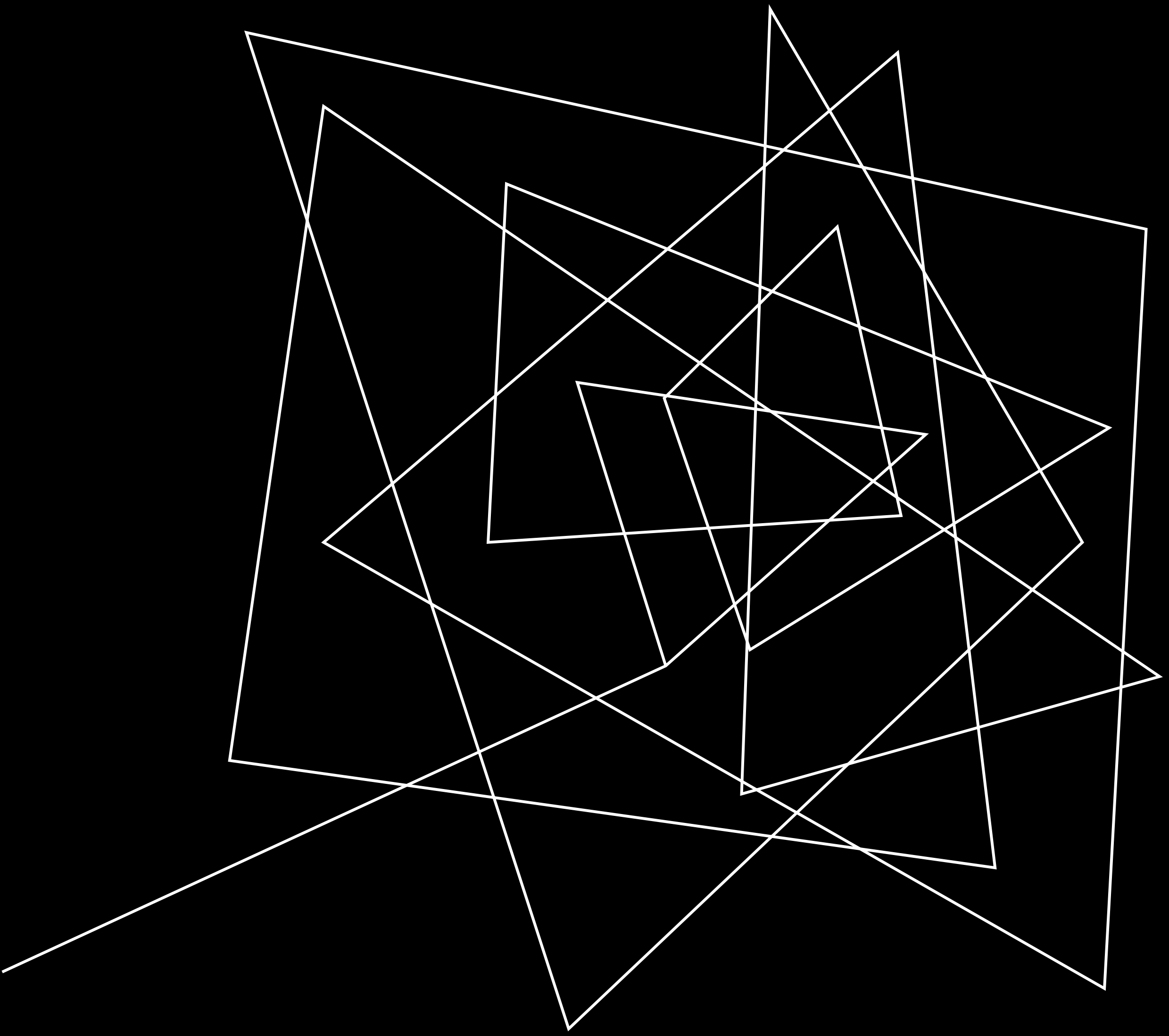
•After placing a bid and auction ending, the flow joins into actions like **send notification**, **update database**, etc.

SUMMARY OF FINDINGS AND ANY ISSUES OR IMPROVEMENTS MADE.

This activity diagram models an online auction system with roles: User, Admin, and System. Guests can browse and search items. Users can register, log in, view/add items, place bids, and pay. Admins manage users, products, and reports. The System handles notifications and auction outcomes. However, error handling is missing. Guest permissions (like managing rooms) seem too advanced. To improve, add clear decision labels, use proper fork/join symbols, handle failures, and clarify system roles. Simplifying these elements will make the diagram easier to understand and maintain.

IMPORTANCE OF ACTIVITY DIAGRAM

Activity diagrams help optimize our live auction system by visually mapping the entire bidding process—from item listing to auction close. They highlight user interactions, system decisions, and real-time data flows, making it easier to spot inefficiencies or delays. These diagrams assist in identifying performance bottlenecks, improving real-time responsiveness, and ensuring smooth error handling. They also support better communication between developers and stakeholders. Overall, activity diagrams serve as a valuable tool for streamlining and refining complex auction workflows.



SYSTEM USE CASES

USE CASE ACTORS

•**Admin** – Manages and oversees platform operations.

•**User** – Primary actor who interacts with the auction system.

•**System** – Represents internal automated processes

USE CASES DESCRIBED IN THE DIAGRAM

User:

•Register

•Login

•View Product

•Place Bid

•Auto Bid

•View Bid Status

•Make Payment

•View Profile

•Edit Profile

•Send Message

•View Message

•View Auction Timer

•Logout

Use Cases Described in the Diagram

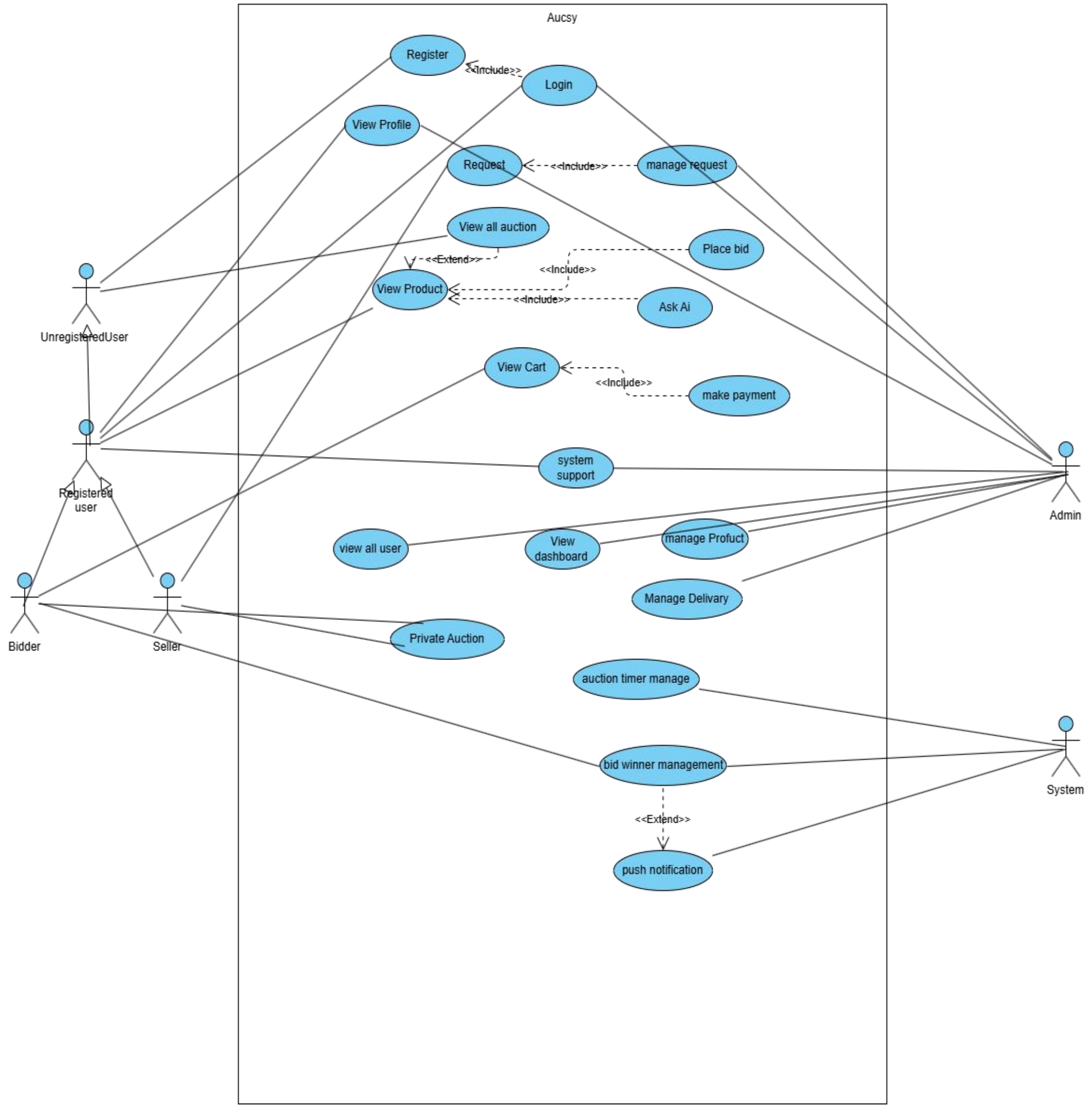
Admin:

- Login
- View Users
- Manage Products
- Approve Product
- Reject Product
- View Bidding History
- Manage Users
- View Messages
- Respond to Message
- Logout

System:

- Start Auction
- End Auction
- Notify Winners

USE CASE DIAGRAM



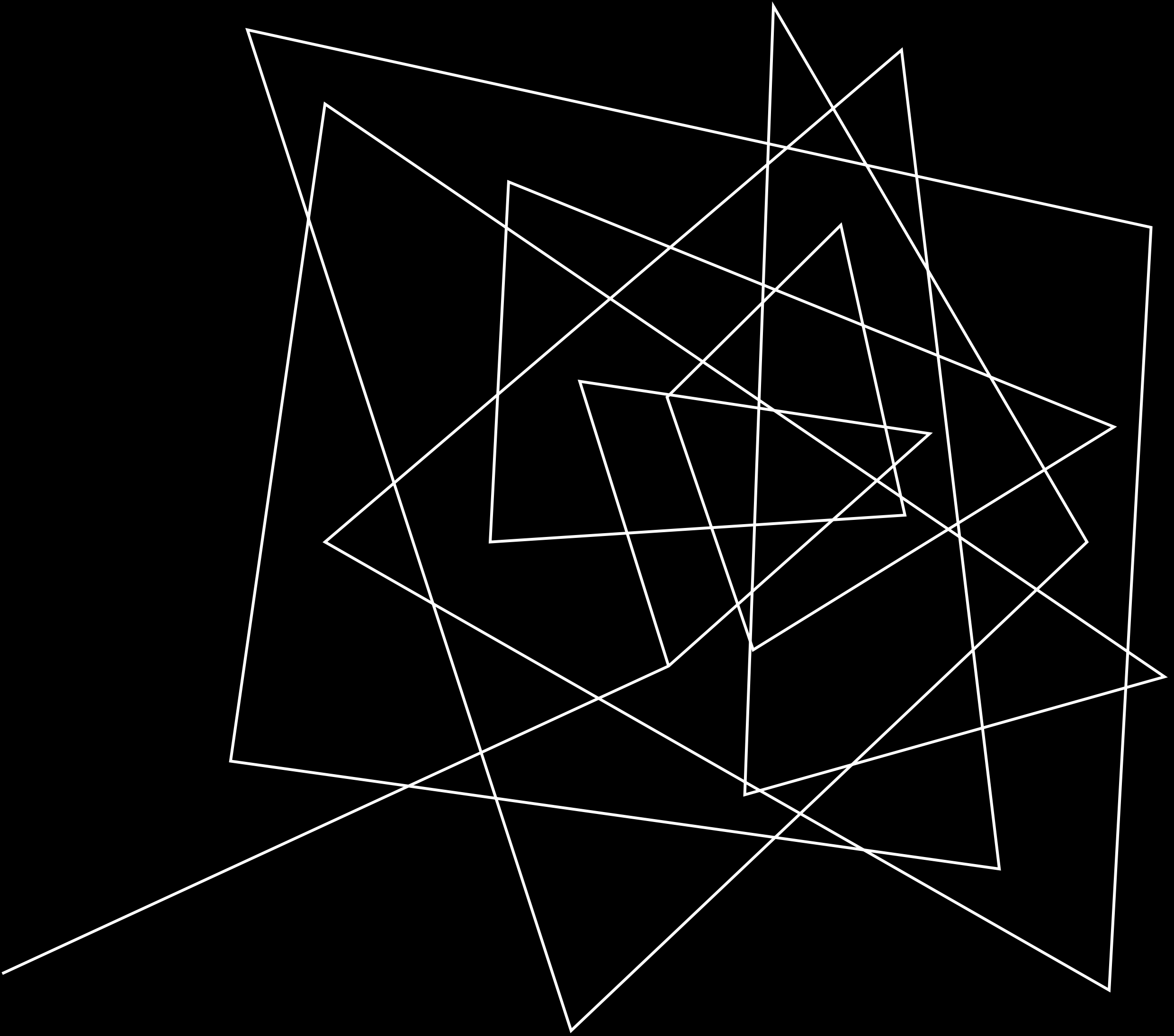
USE CASE DIAGRAM RELATIONSHIPS

<<Include>> relationships:

- “Login” include “Valid Registration".
- “Manage Request” include “ User Request”.
- “Ask Ai” and “Place Bid” include “View Product”.
- “Make Payment” include “View Cart”

<<Extend>> relationships:

- “View All Auction” extends “View Product”
- “Bid winner Management” extends “push notifications”



SYSTEM CLASS DIAGRAM

CLASSES, ATTRIBUTES, AND METHODS

Class: User
Attributes:
- userId
- username
- email
- password
- address
- phoneNumber
- profileImageUrl
- createdAt
- fCMtoken
Methods:
- register()
- login()
- logout()
- viewWonAuctions()
- resetPassword()

Class: WonAuctions
Attributes:
- userId
- auctionIds
- wonDate
- paymentStatus
- deliveryStatus
Methods:
- add()
- remove()
- getCompletedAuctions()
- getPendingPayments()

Class: Admin
Attributes:
- adminId
- role
- permissions
- username
- email
Methods:
manageUsers(
)
-
reviewAuction
Requests()
-
reviewDelivery
Requests()
-
genarateBidC
hart()
-
manageAuctio
nItems()
-
generateSyste
mProgress()

Class: Seller
Attributes:
- sellerId
- username
- email
- password
- address
- phoneNumber
Methods:
- createAuction()
- manageAuctions()

Class: Bidder
Attributes:
- bidderId
- name
- email
- profileImageUrl
- phoneNumber
- address
Methods:
- viewWonAuctions()
- placeBid()
- viewBidHistory()

Class: Auction
Attributes:
- auctionId
- startTime
- endTime
- status
- startingPrice
- currentBid
- winnerId
- sellerId
- itemId
- minBidIncrement
- reservePrice
Methods:
- start()
- end()
- placeBid()
- getStatus()
- extendTime()
- cancel()
- getTimeRemaining()

Class: BidHistory
Attributes:
- auctionId
- bids
- winningBid
- startTime
- endTime
Methods:
- getHighest()
- getBidsByUser()
- getBidTimeline()

Class: AuctionItem
Attributes:
- itemId
- title
- description
- photos
- basePrice
- ownerId
- category
Methods:
- create()
- update()
- delete()
- addPhotos()
- setCategory()

Class: PrivateAuctionRoom
Attributes:
- roomId
- password
- hostId
- title
- participants
- auctionItem
- createdDate
- expiryDate
- isActive
- bidHistory
Methods:
- create()
- join()
- startAuction()
- bid()

Class: Bid
Attributes:
- bidId
- auctionId
- userId
- amount
- timestamp
- autoRebid
Methods:
- place()
- getHighestBid()
- cancelBid()
- updateAutoBidSettings()

Class: Payment
Attributes:
- paymentId
- userId
- auctionId
- amount
- status
- transactionDate
- paymentGatewayId
- fees
Methods:
- process()
- getStatus()
- calculateFees()

Class: AuctionRequest
Attributes:
- requestId
- userId
- itemDetails
- status
- requestDate
- reviewedBy
- comments
Methods:
- submit()
- approve()
- reject()
- updateDetails()
- getStatus()

Class: DeliveryRequest
Attributes:
- deliveryId
- auctionId
- userId
- shippingAddress
- status
Methods:
- create()
- update()
- confirmDelivery()
- generateLabel()

CLASS RELATIONSHIPS

Inheritance:

- Admin, Bidder, Seller → User

Composition:

- Bidder → WonAuctions
- Auction → BidHistory
- Seller → PrivateAuctionRoom

Aggregation:

- Seller → AuctionItem
- Bidder → Bid

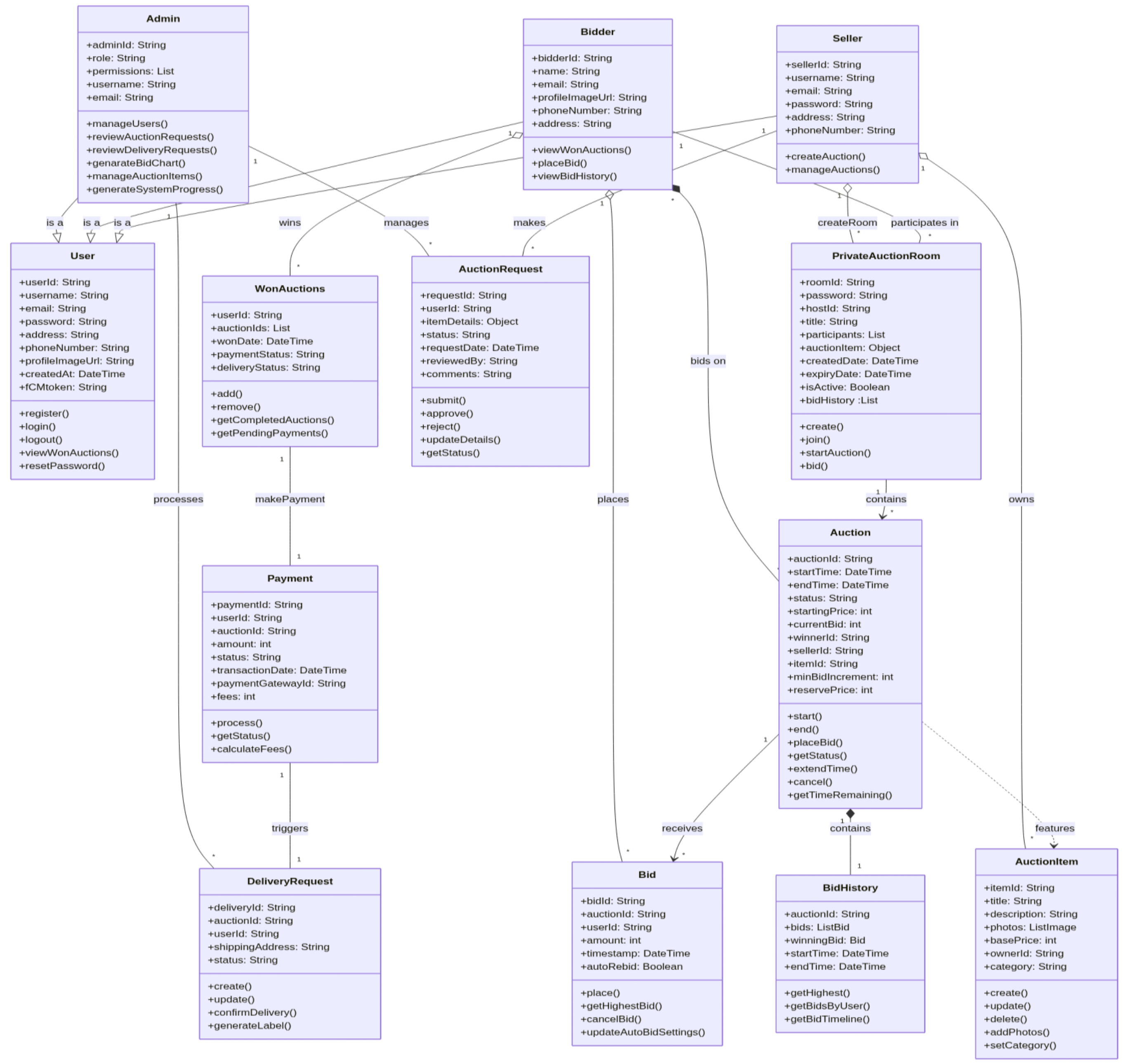
Dependency:

- Auction → AuctionItem
- Auction → Bid
- PrivateAuctionRoom → Auction

Association:

- Bidder ↔ Auction
- Bidder → PrivateAuctionRoom
- Admin → AuctionRequest
- Admin → DeliveryRequest
- Payment → DeliveryRequest
- Seller → AuctionRequest
- WonAuctions → Payment

CLASS DIAGRAM

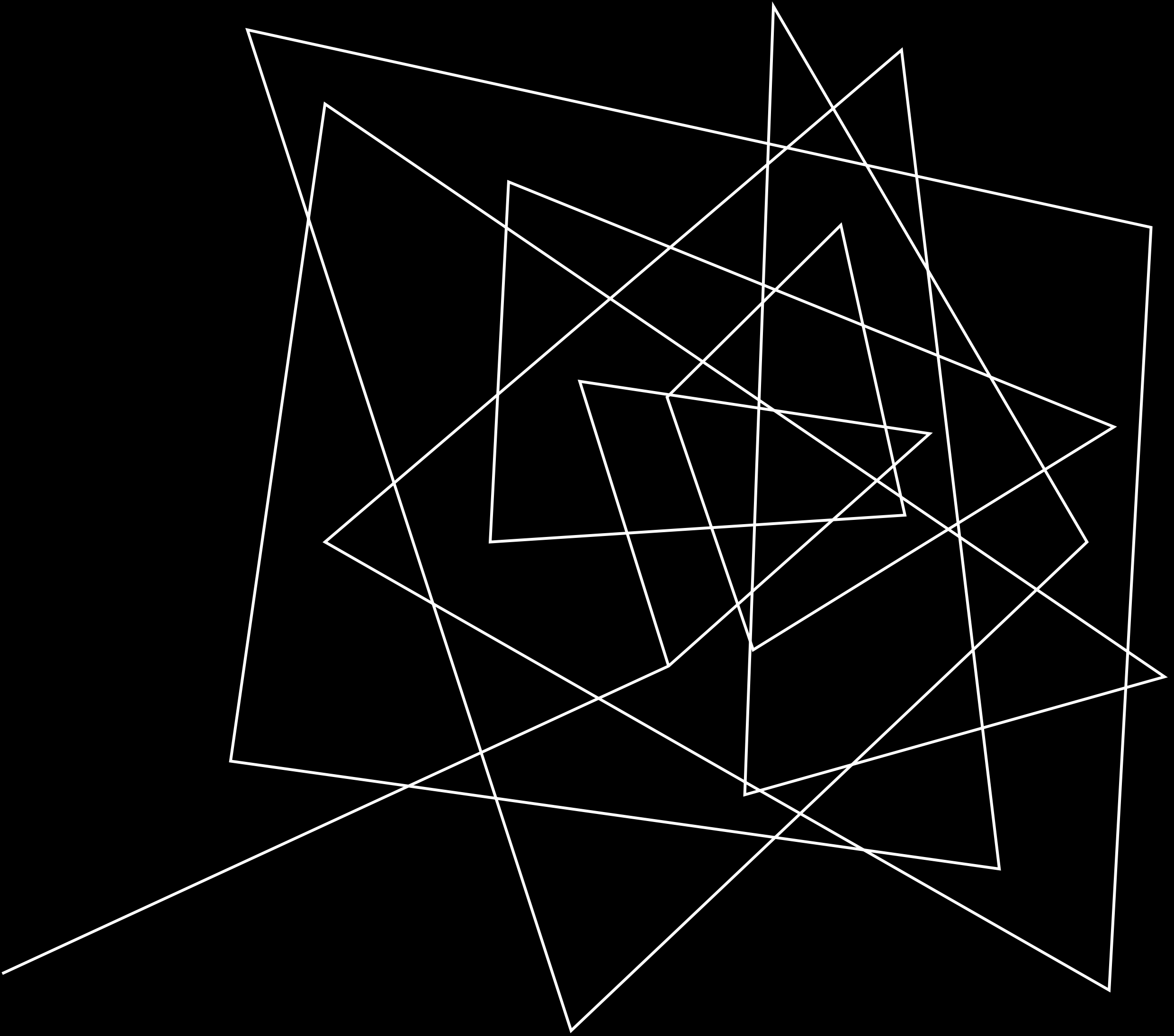


SUMMARY OF ANY FINDINGS AND IMPROVEMENT

The class diagram provides a solid structure for an online auction system, with well-organized inheritance and logical use of relationships like composition, aggregation, and associations. Each class is clearly defined with appropriate attributes and methods, covering core features such as bidding, auctions, payments, and admin controls. However, there are some redundancies—attributes like email and phoneNumber are repeated across subclasses and can be inherited from User. Common actions like auction creation could be abstracted, and names like BidHistory could be made clearer. Overall, the design is strong but can be improved with better abstraction and naming

IMPORTANCE

- Class diagrams are crucial for the project as they provide a clear, visual representation of the system's structure and relationships between different components. They help define how data flows through the application, identify key entities and their responsibilities, and ensure consistent design across development. By mapping out inheritance, associations, and dependencies, class diagrams make it easier to plan, implement, and maintain the system, while also improving team communication and reducing the risk of design errors early in the development process.



PROJECT REQUIREMENT AND PLANNING

PROJECT SCOPE, BOUNDARIES & OBJECTIVES

Scope

We are developing a secure online auction system with user authentication, role-based access, English and sealed-bid auctions, real-time bidding, admin approval, Bkash payment integration, notifications, and analytics tools.

Boundaries

The system excludes delivery logistics, external marketplace integration, AI-driven features, and user reviews. Security focuses on encryption and fraud prevention without advanced predictive mechanisms.

Objectives

We aim to ensure secure participation, support real-time and fair bidding, integrate safe transactions, enhance user experience, enable admin control, provide data-driven insights, and maintain high scalability and reliability.

STAKEHOLDERS AND RESPONSIBILITIES

Faculty (Instructor):
Acting as the evaluator and mentor, the faculty is guiding the project's direction, reviewing milestones, and ensuring academic and technical standards are met.

Teaching Assistant (TA):
The TA is supporting the team by monitoring progress, providing technical guidance, relaying feedback, and ensuring alignment with project requirements and faculty expectations.

Project Team:
We are responsible for designing, developing, testing, and delivering the system. Our tasks include requirement gathering, feature implementation, debugging, and documentation.

End Users (Hypothetical):
Representing buyers, sellers, and admins, their needs are shaping features like registration, bidding, and payment flows to ensure a user-centered design.

RESOURCE MANAGEMENT

- 4 team members with clear roles (project manager, devs, UI/UX, security, documentation)
- Tools: GitHub, Firebase, Flutter, Android Studio, Discord

PROJECT REQUIREMENTS OVERVIEW

Functional Requirements
The system includes secure user registration with role-based access control and profile management. It supports online auctions, featuring automated bidding, real-time updates, and Bkash payment integration. Administrative functions include auction approval, user management, fraud monitoring, dispute resolution, and comprehensive reporting tools.

Non-Functional Requirements
The platform is designed to ensure support of high user traffic and maintain strong security through SSL encryption and two-factor authentication. A responsive and user-friendly interface is maintained across web and mobile devices.

Technical Requirements
The application utilizes Flutter and Dart for the frontend, with Firebase providing backend services including real-time data handling and authentication. Firebase Firestore is used for data storage, while Supabase handles media storage. Hosting is managed via Firebase Hosting, and integrations include Bkash API and Firebase Cloud Messaging.

Business Requirements:
The business model is based on commission from completed auctions, with additional options for premium features. Clear user policies are enforced to prevent manipulation, supported by a verification system.

RISK MANAGEMENT

Potential Risks

- Security Vulnerabilities
- Resource Unavailability
- Payment Gateway Integration Issues

Risk Mitigation Strategies

Security vulnerabilities are prevented through encryption, multi-factor authentication, and regular compliance audits. Resource unavailability is addressed by cross-training team members and maintaining backup infrastructure. Payment gateway issues are mitigated by sandbox testing, real-time monitoring, and implementing secure fallback options.

QUALITY MANAGEMENT

Quality Assurance

Testing includes unit, integration, and widget tests using Flutter, along with backend testing via Firebase Emulator. Both automated and manual testing are used, supported by regular code reviews, peer testing, and CI/CD integration through GitHub Actions.

Evaluation Criteria

- Functional Accuracy
- System Stability and Uptime
- User Feedback and Satisfaction
- Compliance with Functional Requirements

Monitoring & Control

Firebase Crashlytics is used for real-time error tracking. Automated tests validate new features, while manual tests verify key user flows. Weekly internal reviews and stakeholder meetings support continuous quality control.

COMMUNICATION PLAN

Communication Channels

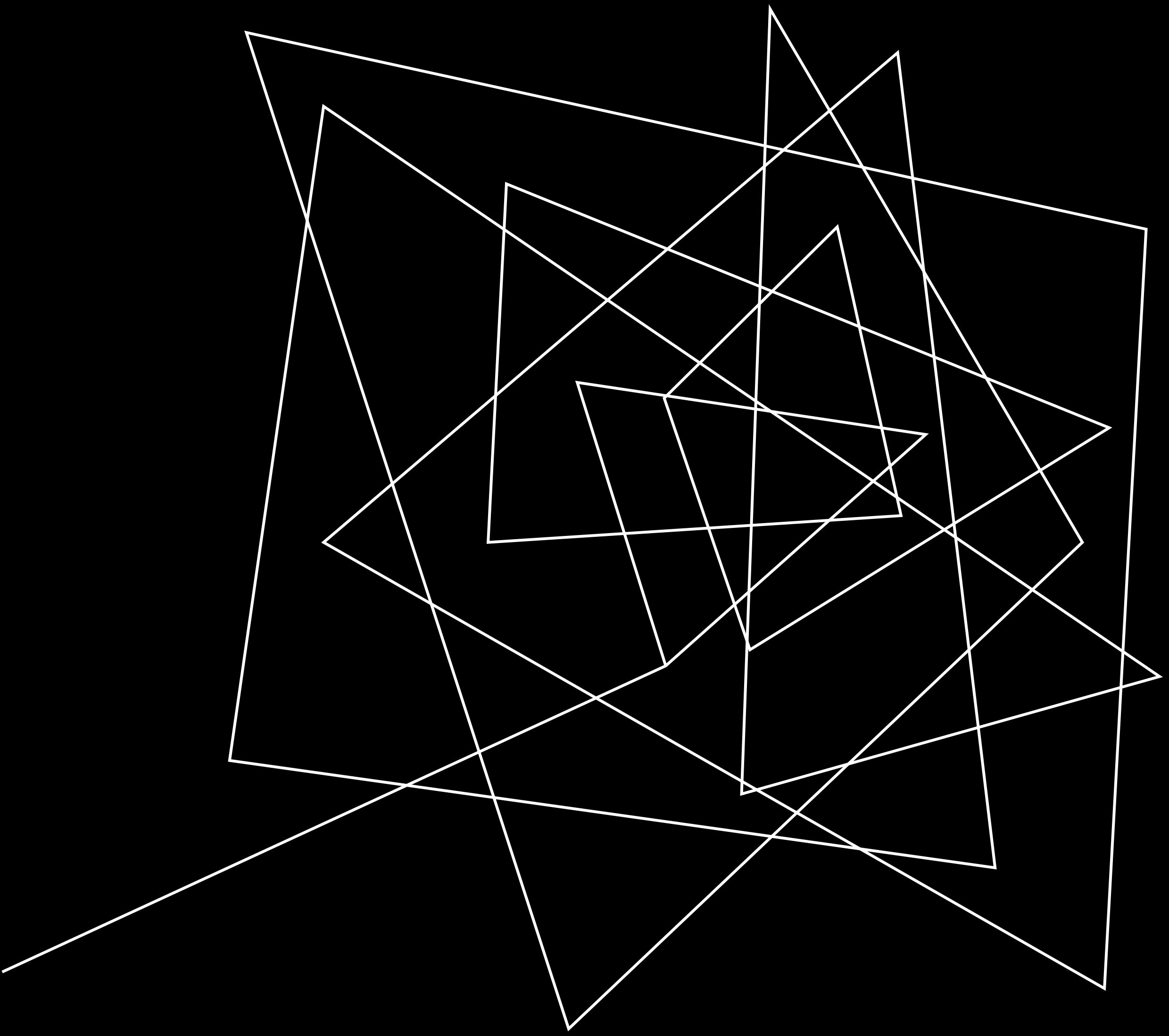
Maintaining weekly team meetings to discuss progress and address any challenges. Using Discord for real-time collaboration, screen sharing during development tasks. Also using GitHub for code sharing, version control, and issue tracking. Using Messenger for quick updates and coordinating schedules.

Reporting Frequency

Sharing status updates weekly via Discord and GitHub to keep the team aligned. Conducting monthly progress reviews to evaluate completed features, identify blockers, and prepare for Lab presentations. Occasional meetings with faculty and TA are scheduled to demonstrate new features and gather feedback.

Project Documentation

Monthly updating presentation slides to document all significant updates. In addition to a project report that shows our progress and alignment with the established goals, a comprehensive project requirements and planning document is being kept up to date.



CASE STUDY OVERVIEW

ANALYSIS OF EXISTING PROJECTS

Local Platforms:

•Auction Villa: User-friendly, local focus, low traffic.
•BDAuction: Simple UI, outdated features.
•Auction Bangla: Real-time bidding, cloud-based, tech-dependent.
•Nilam: Minimalist, limited features.
•Customs Auction: Govt-run, secure but outdated.

International Platforms:

•LiveAuctioneers: High-end, global reach, real-time features.
•Catawiki: Expert-curated, luxury focus.
•ShopGoodwill: Nonprofit, secondhand items.
•Bring a Trailer: Vehicle auctions, community-driven.
•PropertyRoom: Police surplus auctions, U.S.-centric

re / orm	AuctionVilla	BDAuction	Auction Bangla	Nilam	Customs Auction	LiveAuctioneers	Catawiki	ShopGoodwill	Bring a Trailer	PropertyRoon
n	Bangladesh	Bangladesh	Bangladesh	Bangladesh	Bangladesh	Global	Europe	USA	USA	USA
alty	General Goods	General Goods	Real-Time Bidding	Basic Auctions	Govt. Seized Items	Fine Art, Antiques	Collectibles	Thrift Items	Classic Cars	Police Surplus
nterface	Modern, Mobile Friendly	Basic, Outdated	Live UI, Responsive	Minimalist	Outdated	Professional	Clean & Curated	Basic	High-end Listings	Functional
e Support	Yes	Basic	Yes	Limited	No	Full App Support	Full App Support	Limited App	Mobile Friendly	Basic
Time ng	Partial	No	Yes	No	Scheduled Only	Yes	Yes	Some Items	Yes	Yes
cation m	Basic	Basic	Limited	None	Govt. Verified	Strong	Expert Review	Limited	Verified Listings	Verified Items
nunity res	No	No	No	No	No	Yes	Yes	No	Active Comments	No
ent ns	Local Only	Local Only	Local Only	Local Only	Manual / Govt. Only	Multi-method	Secure Gateway	Limited	Escrow	Limited
g Approval	Open	Open	Open	Open	Strict	Selective	Expert-reviewed	Open	Selective	Restricted
uage ort	English & Bengali	English & Bengali	Bengali Only	Bengali Only	English	English & Multilingual	Multilingual	English	English	English
e Strength	Dual Transaction Modes	Simplicity	Cloud-based Live Events	Cultural Relevance	Govt. Credibility	Global Reach & Art Focus	Expert Curation	Nonprofit Mission	Enthusiast Community	Govt. Surplus Access
imitation	Low Traffic, Limited Pay	Outdated Features	Tech Dependency	Limited Features	Complex, Formal Process	High Fees, Complex Usage	Long Payment Cycles	Varying Item Quality	Niche Market	No/Strict Retu Policy

GAP ANALYSIS & PROPOSED IMPROVEMENTS FOR AUCSY

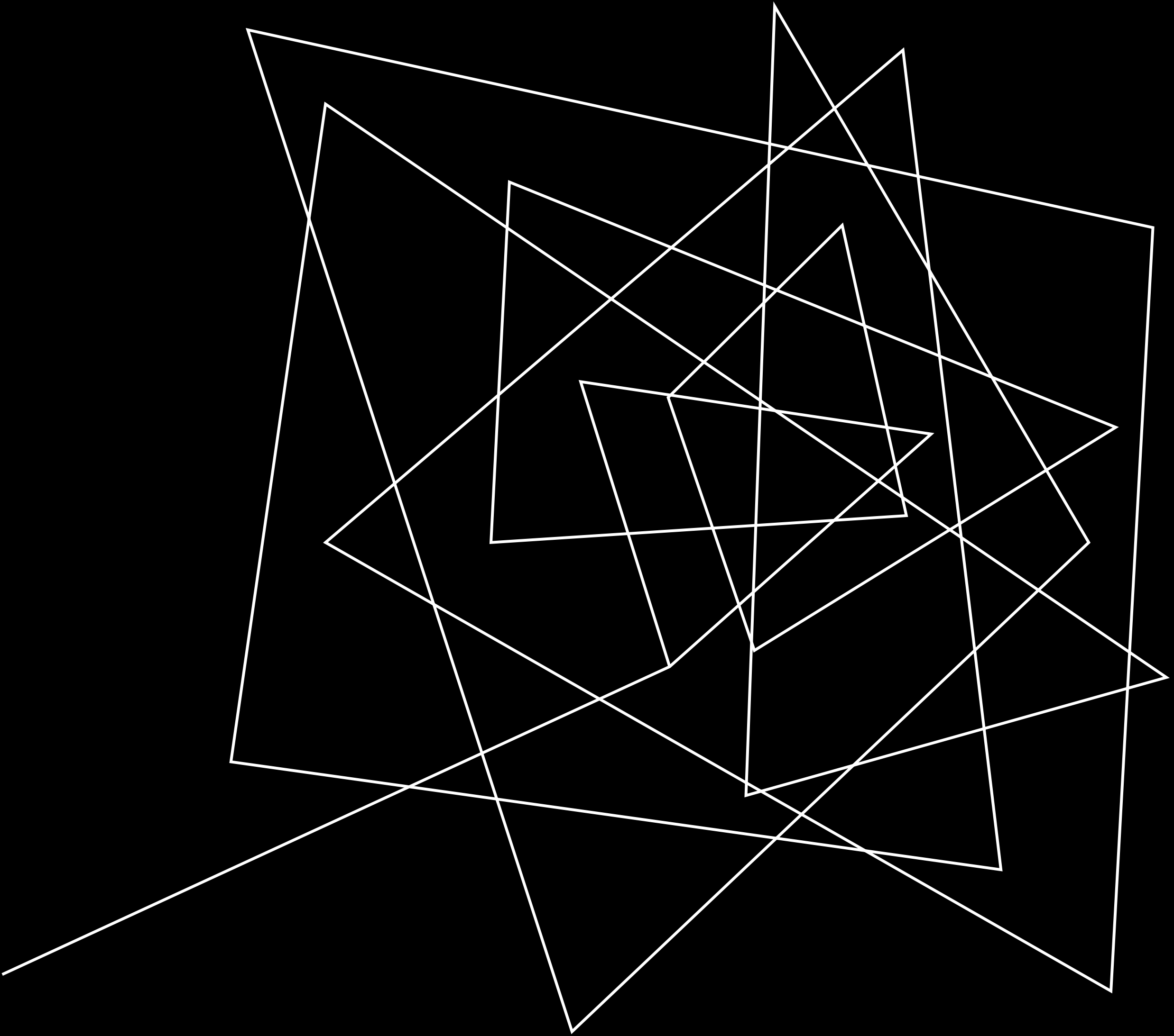
•Trust & Verification: Introduce e-KYC, Trust Score, AI-based verification.

•Payments: Add Nagad, Rocket, cards, installment support.

•Search: NLP, voice/image search, personalization.

•Community: In-app chat, reviews, activity feeds.

•Seller Tools: Dashboards, analytics, bulk uploads.



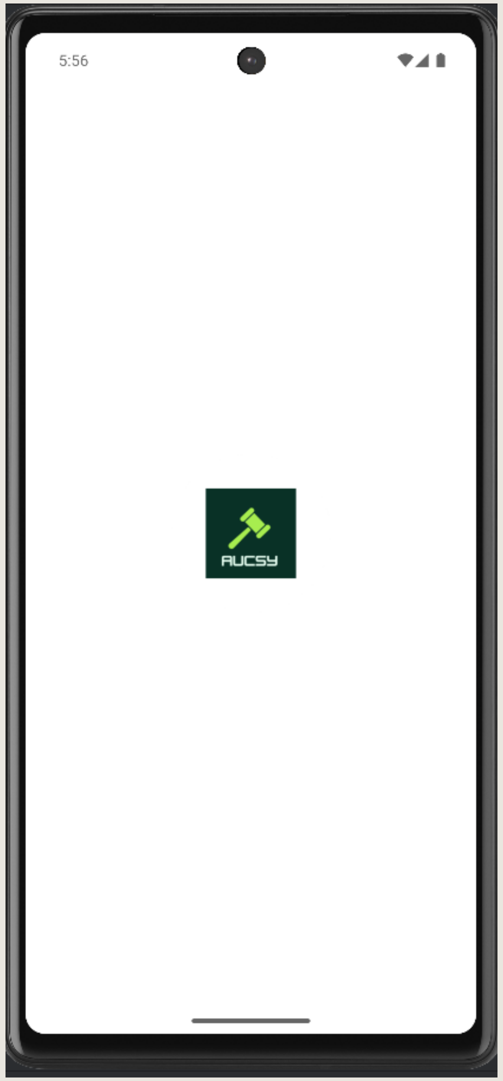
PROJECT OVERVIEW

Source Code: https://github.com/XhAfAn1/Live-Auction-System

APK File: https://github.com/XhAfAn1/Live-Auction-System/blob/master/installation/app-release.apk

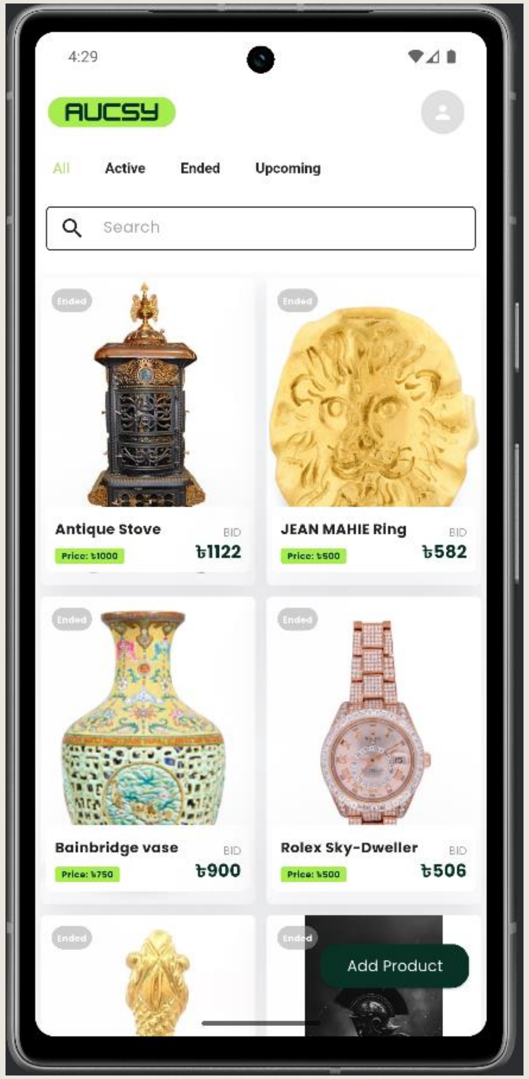
Live web system: https://live-auction-system-26b33.web.app/

#Splash Screen


5:56

AUCSY

#Home Screen


4:29

AUCSY

All Active Ended Upcoming

Search

Ended Antique Stove Price: ৳1000 BID ৳1122

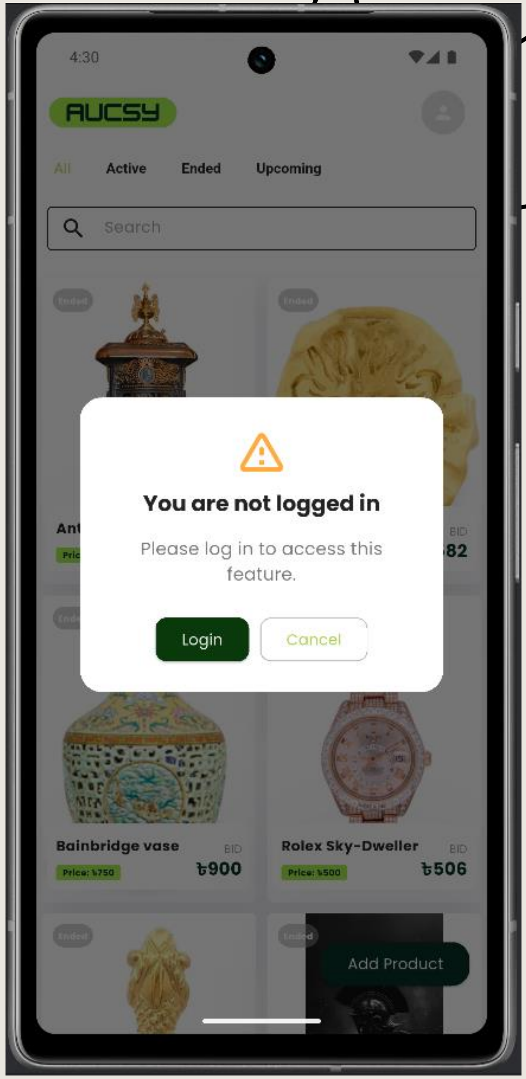
Ended JEAN MAHIE Ring Price: ৳500 BID ৳582

Ended Bainbridge vase Price: ৳750 BID ৳900

Ended Rolex Sky-Dweller Price: ৳500 BID ৳506

Add Product

#For Accessing all the features must have to logged in


4:30

AUCSY

All Active Ended Upcoming

Search

You are not logged in

Please log in to access this feature.

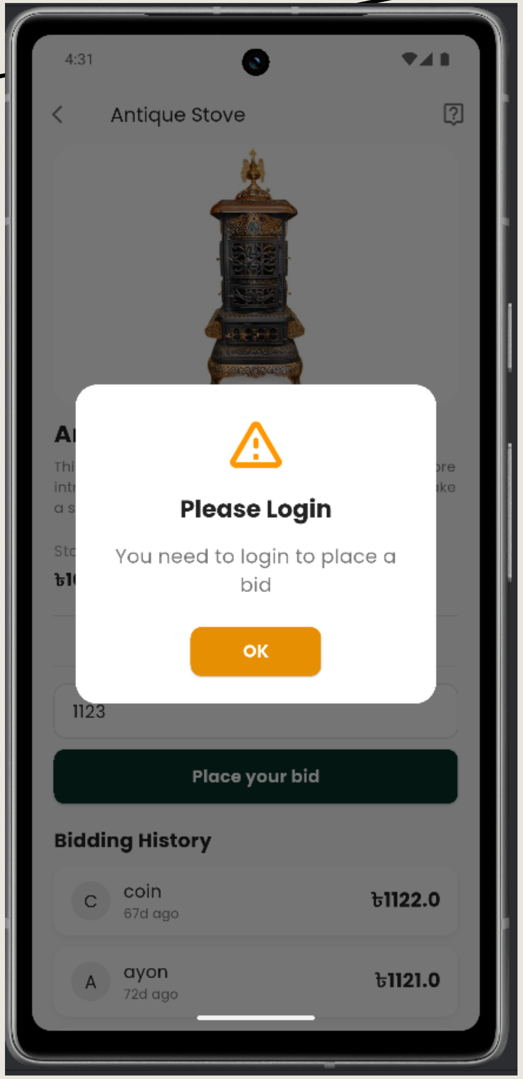
Login Cancel

Bainbridge vase Price: ৳750 BID ৳900

Rolex Sky-Dweller Price: ৳500 BID ৳506

Add Product

#Must Logged in to place a bid


4:31

Antique Stove

Please Login

You need to login to place a bid

OK

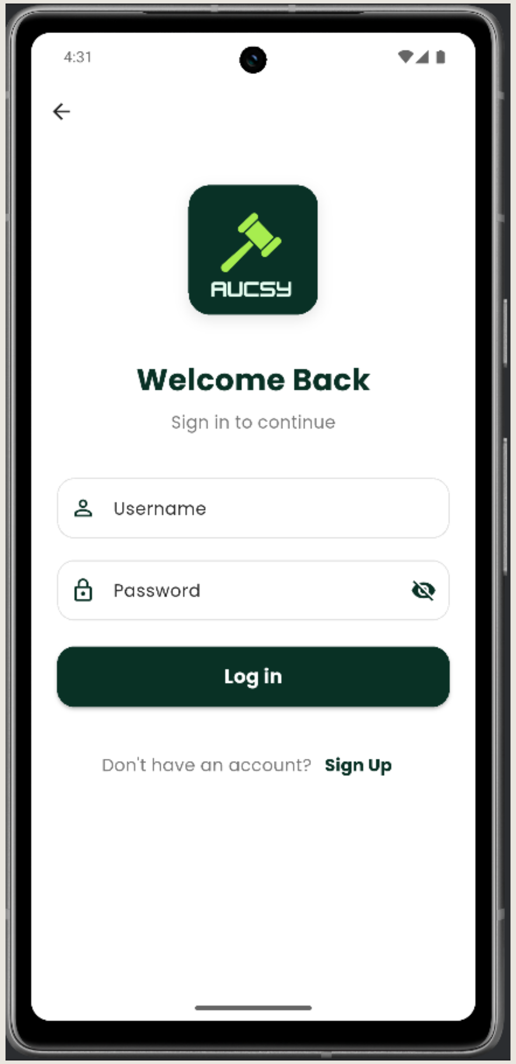
1123

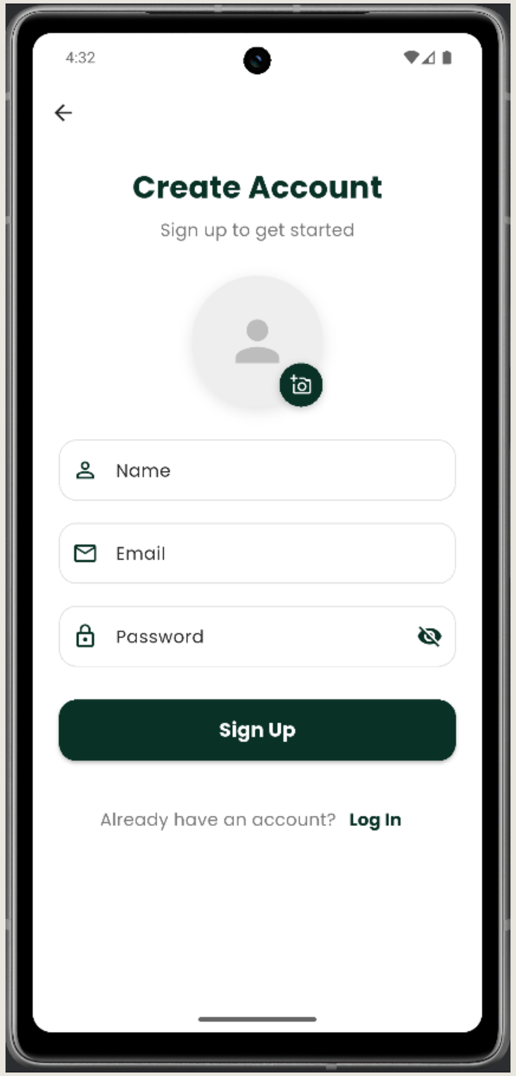
Place your bid

Bidding History

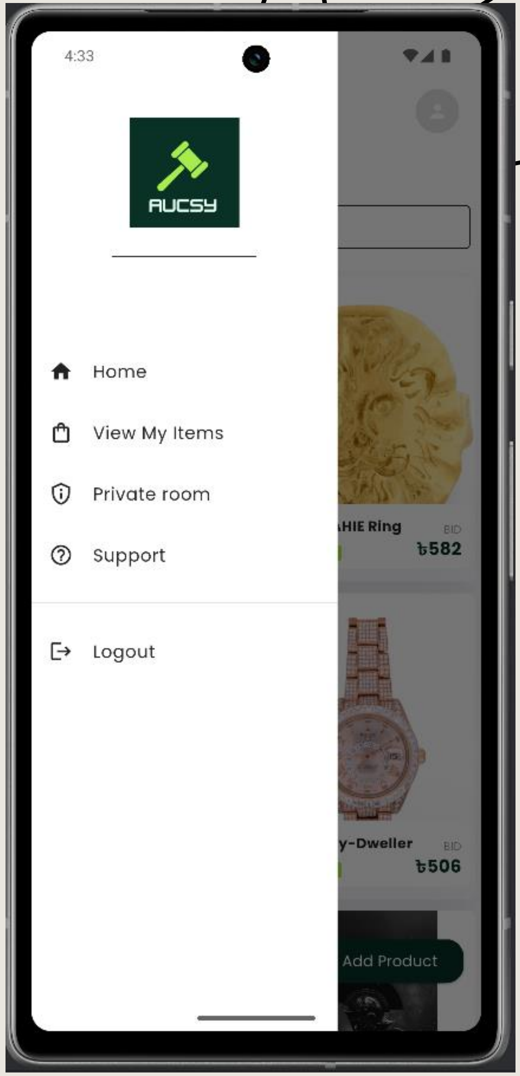
C	coin	67d ago	৳1122.0
A	ayon	72d ago	৳1121.0

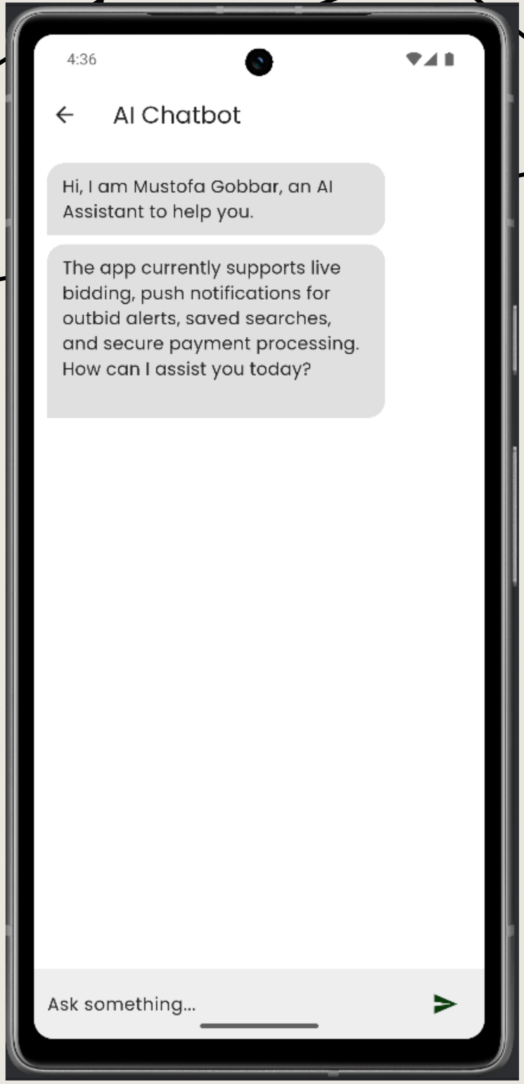
#Login Page





#User Create Account



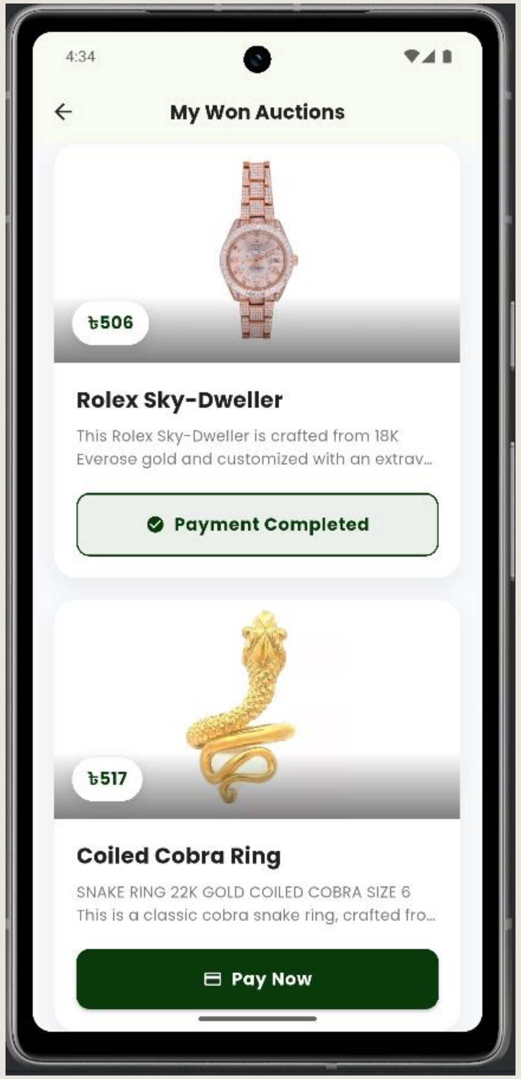


Hi, I am Mustofa Gobbar, an AI Assistant to help you.

The app currently supports live bidding, push notifications for outbid alerts, saved searches, and secure payment processing. How can I assist you today?

#Ask Ai for system support

#User’s Navigation Bar


4:34

My Won Auctions

৳506

Rolex Sky-Dweller

This Rolex Sky-Dweller is crafted from 18K Everose gold and customized with an extrav...

Payment Completed

৳517

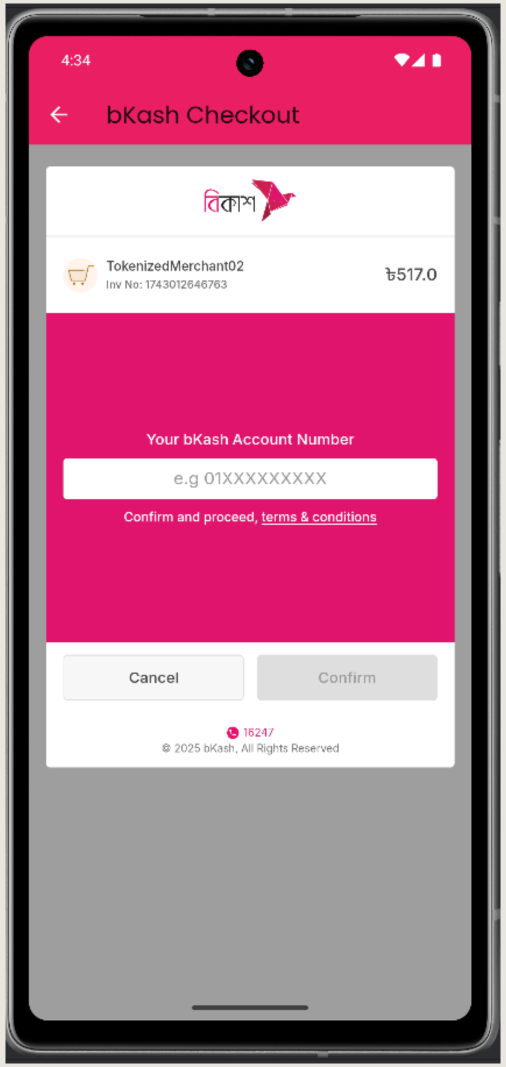
Coiled Cobra Ring

SNAKE RING 22K GOLD COILED COBRA SIZE 6
This is a classic cobra snake ring, crafted fro...

Pay Now

#Auction Won List

#Real Time Payment Method


4:34

bKash Checkout

বিকাশ

TokenizedMerchant02
Inv No: 1743012646763

৳517.0

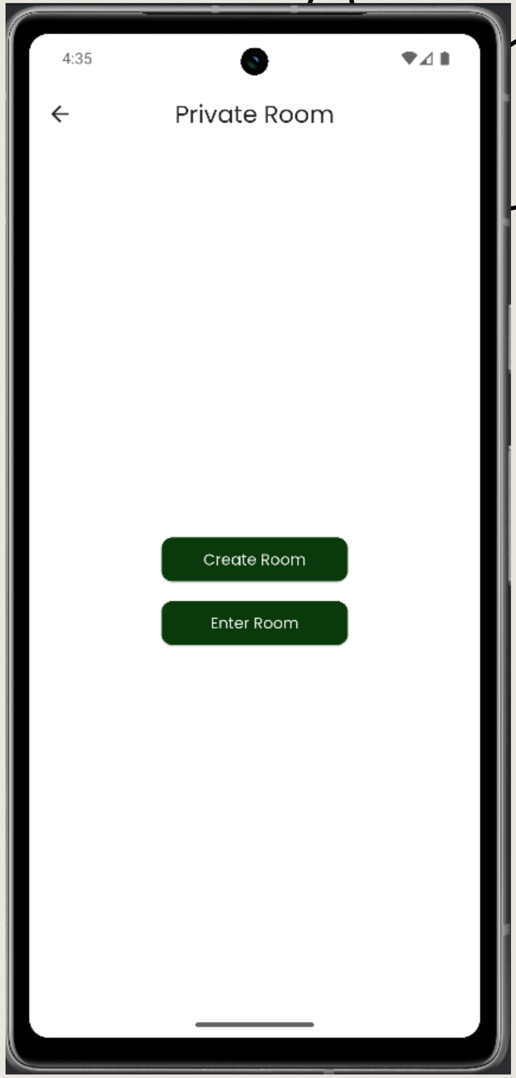
Your bKash Account Number

e.g 01XXXXXXXXX

Confirm and proceed, terms & conditions

Cancel Confirm

16247
© 2025 bKash, All Rights Reserved


4:35

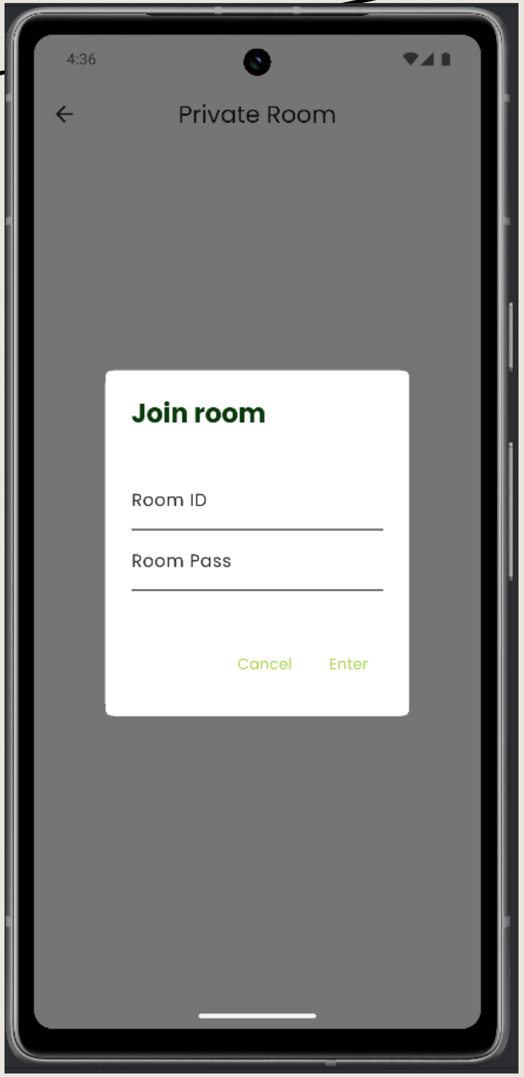
Private Room

Create Room

Enter Room

#Private auction Room

#Join Room for Auction


4:36

Private Room

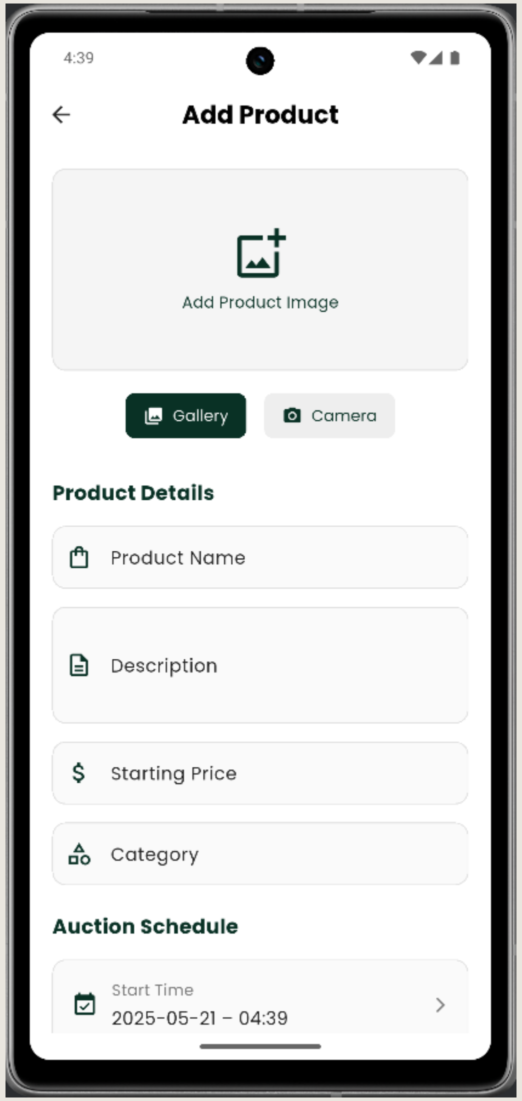
Join room

Room ID

Room Pass

Cancel Enter

#Add Product request


4:39

Add Product

Add Product Image

Gallery

Camera

Product Details

Product Name

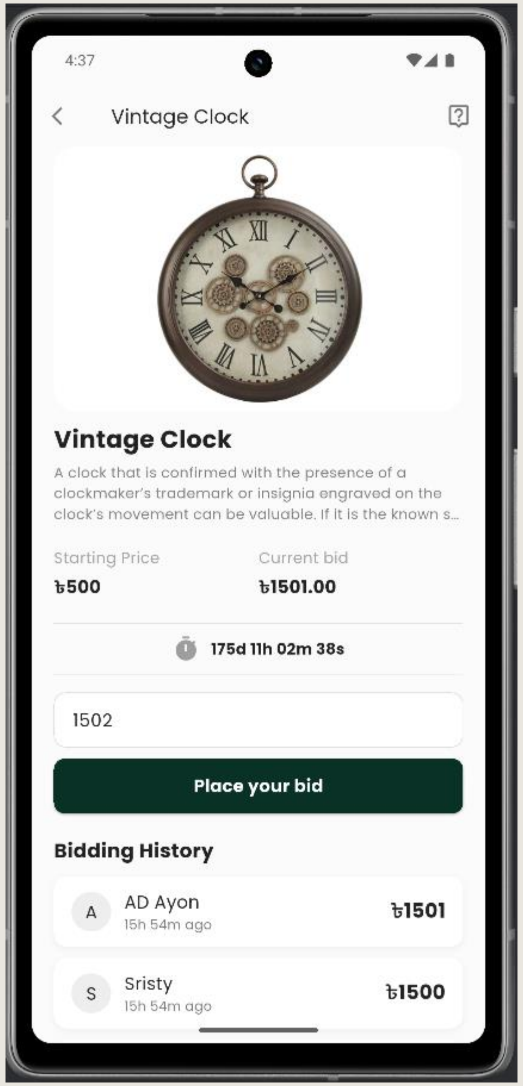
Description

Starting Price

Category

Auction Schedule

Start Time
2025-05-21 – 04:39


4:37

Vintage Clock

Vintage Clock

A clock that is confirmed with the presence of a clockmaker's trademark or insignia engraved on the clock's movement can be valuable. If it is the known s...

Starting Price	Current bid
৳500	৳1501.00

175d 11h 02m 38s

1502

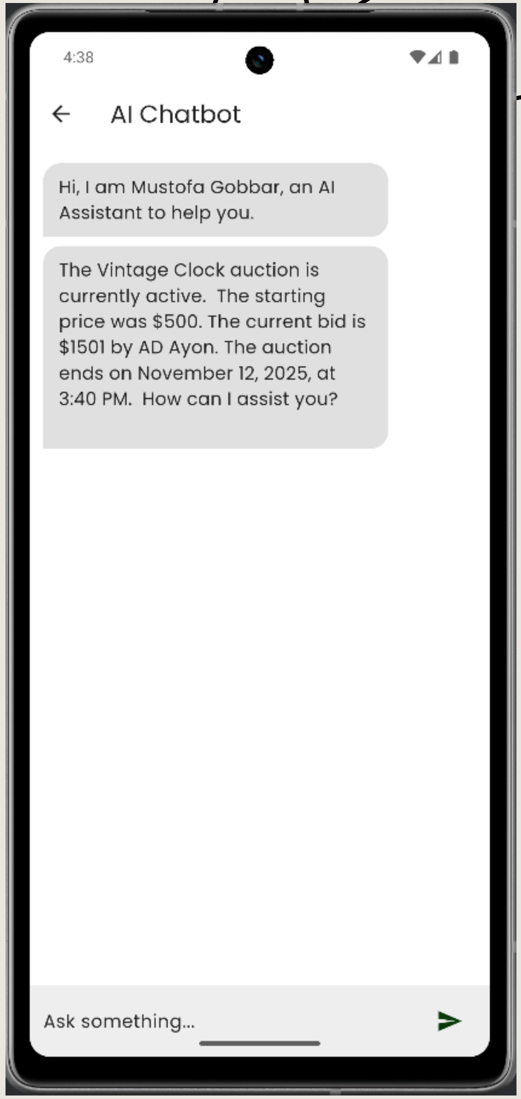
Place your bid

Bidding History

A	AD Ayon 15h 54m ago	৳1501
S	Sristy 15h 54m ago	৳1500

#Auction Item &placing bid

#Ask Ai for product related help

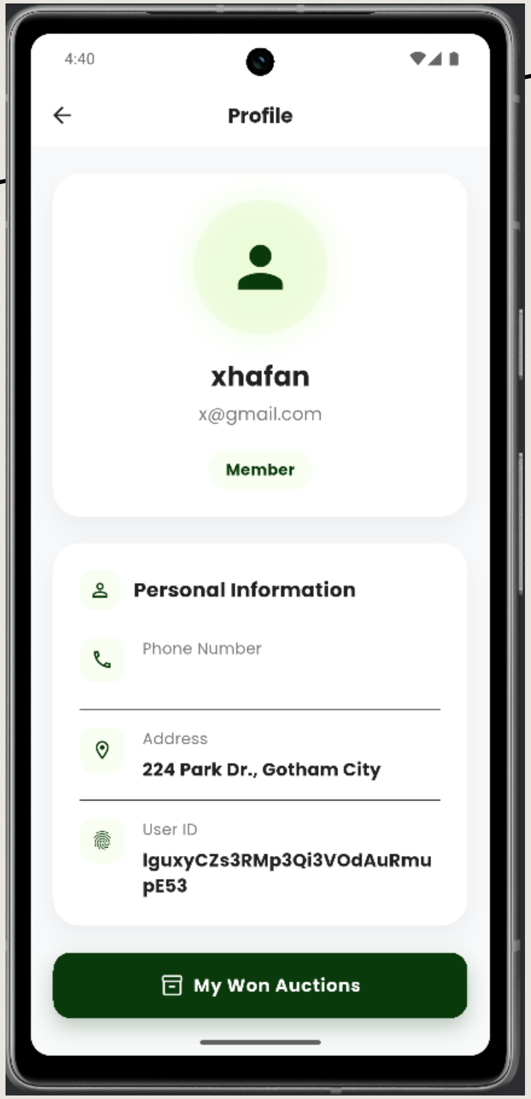

4:38

AI Chatbot

Hi, I am Mustofa Gobbar, an AI Assistant to help you.

The Vintage Clock auction is currently active. The starting price was $500. The current bid is $1501 by AD Ayon. The auction ends on November 12, 2025, at 3:40 PM. How can I assist you?

Ask something...


4:40

Profile

xhafan

x@gmail.com

Member

Personal Information

Phone Number

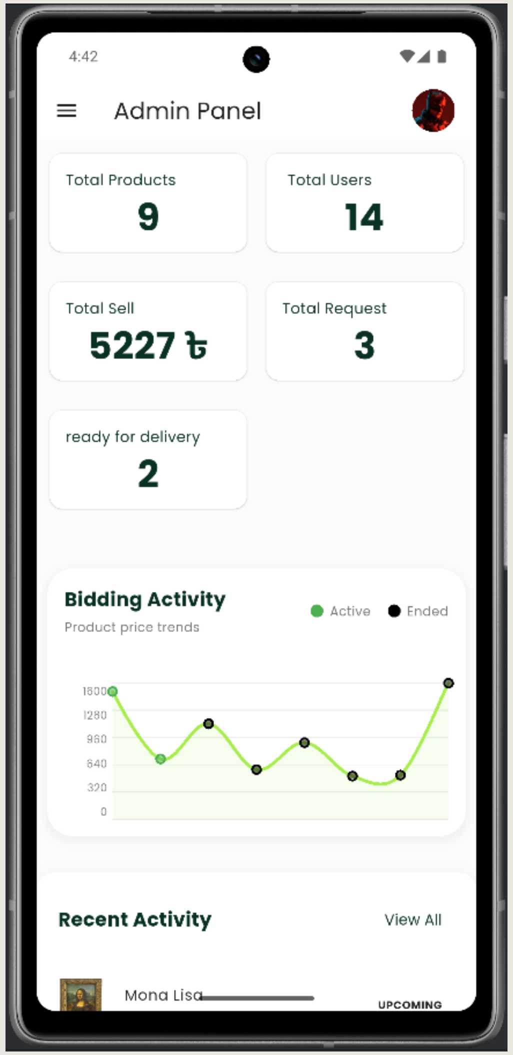
Address
224 Park Dr., Gotham City

User ID
IguxyCZs3RMp3Qi3VOdAuRmupE53

My Won Auctions

#User Profile

#Admin Panel


4:42

Admin Panel

Total Products 9

Total Users 14

Total Sell 5227 ৳

Total Request 3

ready for delivery 2

Bidding Activity

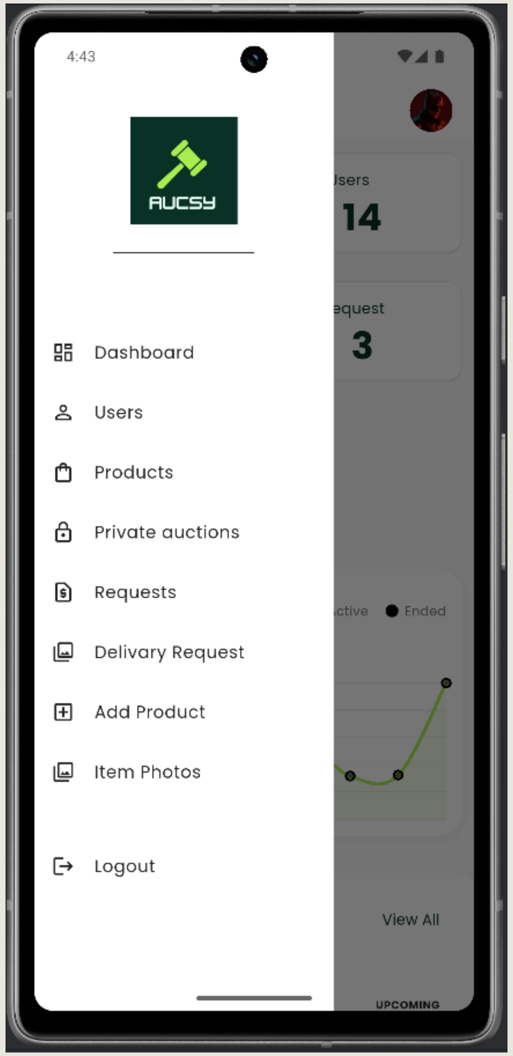
Product price trends

● Active ● Ended

Recent Activity View All

Mona Lisa UPCOMING

#Admin Navigation Bar


4:43

Dashboard

Users

Products

Private auctions

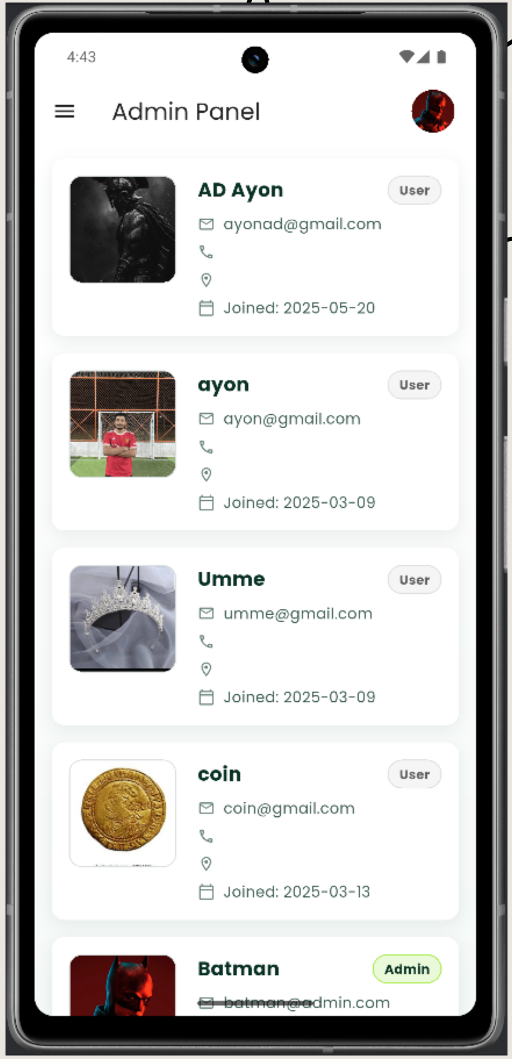
Requests

Delivary Request

Add Product

Item Photos

Logout


4:43

Admin Panel

AD Ayon User
ayonad@gmail.com
Joined: 2025-05-20

ayon User
ayon@gmail.com
Joined: 2025-03-09

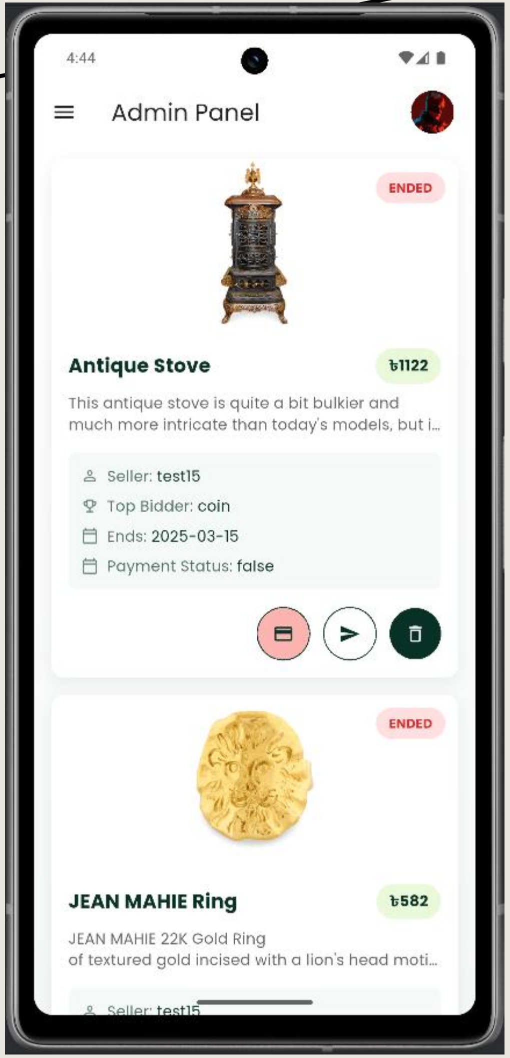
Umme User
umme@gmail.com
Joined: 2025-03-09

coin User
coin@gmail.com
Joined: 2025-03-13

Batman Admin
batman@admin.com

#Show user list from admin panel

#Admin Controlling Auction


4:44

Admin Panel

ENDED

Antique Stove ৳1122

This antique stove is quite a bit bulkier and much more intricate than today's models, but i...

Seller: test15
Top Bidder: coin
Ends: 2025-03-15
Payment Status: false

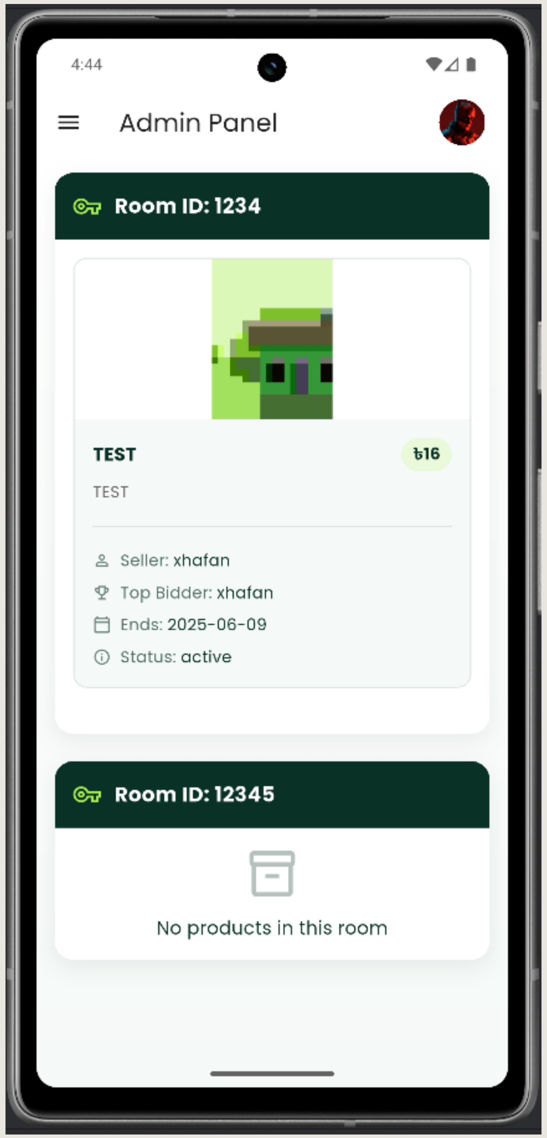
ENDED

JEAN MAHIE Ring ৳582

JEAN MAHIE 22K Gold Ring of textured gold incised with a lion's head moti...

Seller: test15

#Admin controlling room


4:44

Admin Panel

Room ID: 1234

TEST ৳16

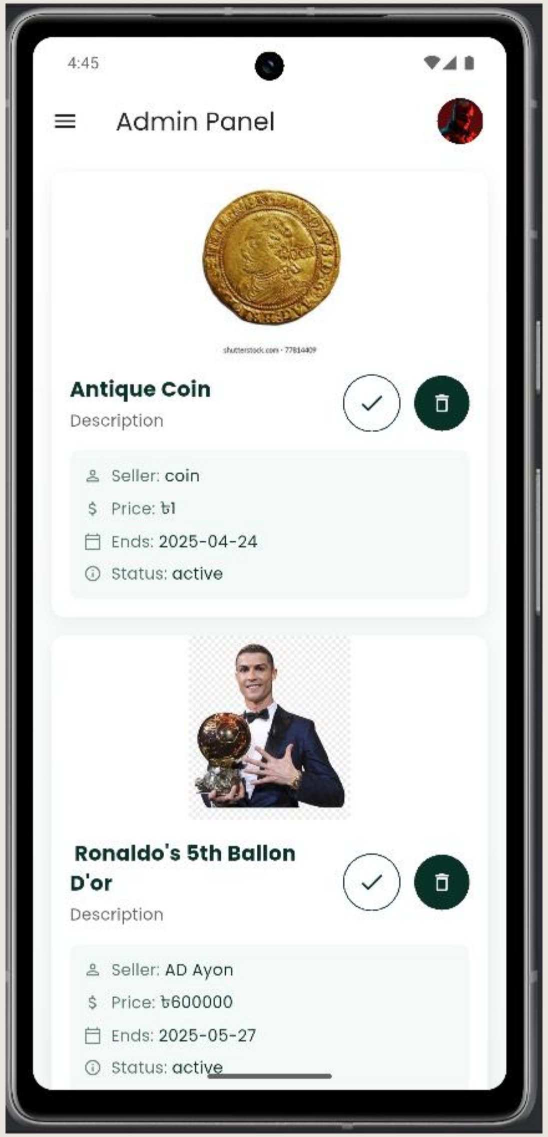
TEST

Seller: xhafan
Top Bidder: xhafan
Ends: 2025-06-09
Status: active

Room ID: 12345

No products in this room

#Admin can do add product and delete product of an user


4:45

Admin Panel

Antique Coin

Description

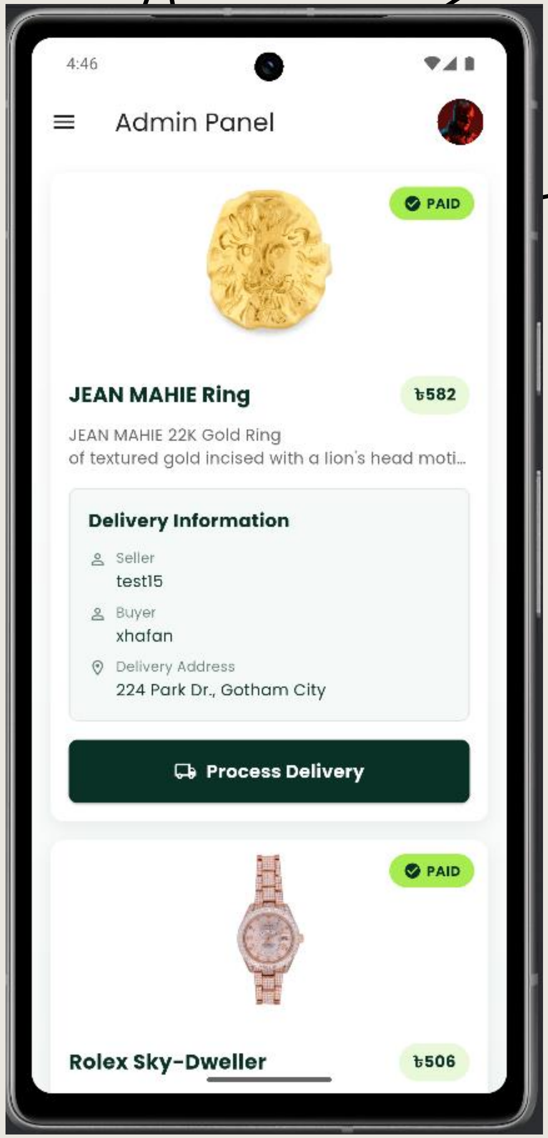
Seller: coin
Price: ৳1
Ends: 2025-04-24
Status: active

Ronaldo's 5th Ballon D'or

Description

Seller: AD Ayon
Price: ৳600000
Ends: 2025-05-27
Status: active

#Admin can check whether a product is paid or not


4:46

Admin Panel

PAID

JEAN MAHIE Ring ৳582

JEAN MAHIE 22K Gold Ring
of textured gold incised with a lion's head moti...

Delivery Information

Seller
test15

Buyer
xhafan

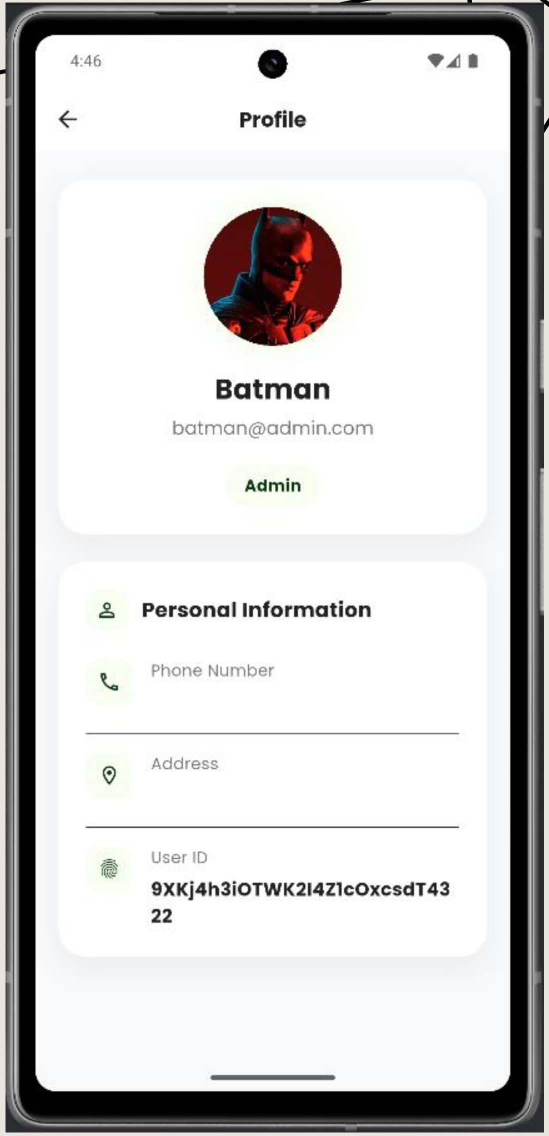
Delivery Address
224 Park Dr., Gotham City

Process Delivery

PAID

Rolex Sky-Dweller ৳506

#Admin Profile


4:46

Profile

Batman

batman@admin.com

Admin

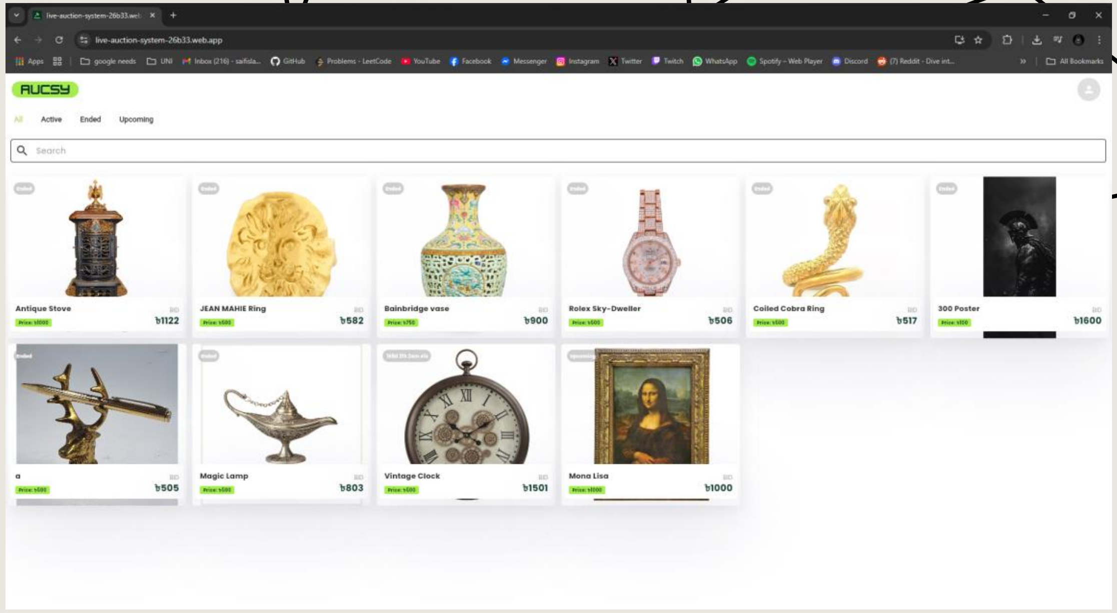
Personal Information

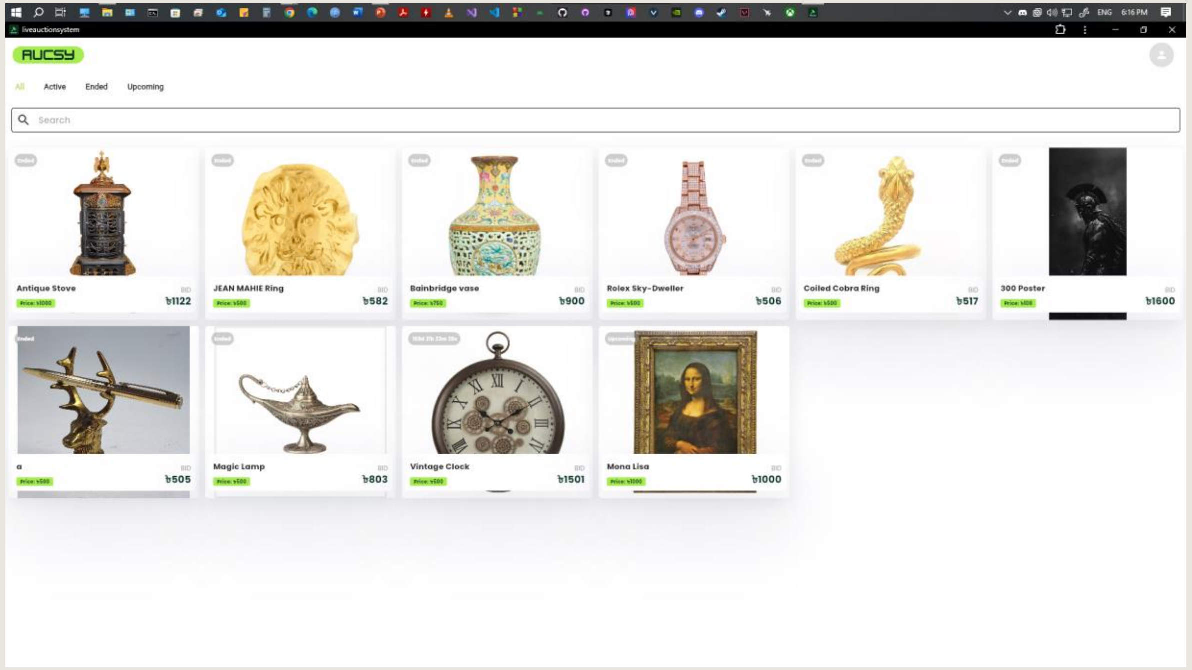
Phone Number

Address

User ID
9XKj4h3iOTWK2l4Z1cOxcsdT43 22

Web app with limited functionality





Desktop App

CONCLUSION

Our **Live Auction App**, developed using **Flutter and Firebase**, provides a **secure, real-time bidding experience** with features like **live auctions, secure payment processing, real-time notifications, and instant bid updates**. The platform is designed to offer a **user-friendly, efficient, and fair** marketplace, ensuring **smooth transactions for buyers and sellers**. By implementing **real-time analytics, automated bid management, and an admin dashboard**, the system enhances user engagement and streamlines auction operations. As future improvements, we aim to integrate **AI-driven price predictions, blockchain-based security for transactions, and expanded multi-platform support** to make the auction experience even more robust and scalable.

THANK YOU