

Team Tri-Star Alliance

System Requirements Document (SRD)

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AuctionNest

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System Requirements

Squad Bids

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Approval of the System Requirements indicates an understanding of the purpose and content described in this deliverable. By signing this deliverable, each individual agrees with the content contained in this deliverable.

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Section 1 Purpose

The purpose of the System Requirements Document is to specify the overall system requirements that will govern the development and implementation of the system. The document will also establish initial function, infrastructure, reporting, security, training, and support requirements and system acceptance criteria agreed upon by the project sponsor and key stakeholders.

1.1 System/Project Scope

This AuctionNest website aims to revolutionize the online marketplace by providing a platform for users to buy and sell goods through a lively and transparent bidding process. It caters to the increasing demand for a more engaging shopping experience, where consumers can discover exclusive products and take advantage of competitive pricing.

1.2 Project Importance

This solution is vital for creating a dynamic marketplace that adapts to the evolving preferences of online shoppers. It enhances user engagement, promotes competitive pricing, and expands access to rare and unique products. For sellers, it offers an innovative way to reach a broader audience and increase visibility.

1.3 Background

The AuctionNest website benefits buyers looking for unique items at competitive prices, sellers seeking a wider market for their products, and the broader e-commerce industry by introducing a fresh, competitive element to online shopping.

1.4 Critical Success Factors

1. Customer Trust and Transparency

- Desired Outcome: Build a trusted platform where users feel secure in making transactions.

- **Conditions:** Implement seller reviews, transparent bidding processes, and use multi-factor authentication (MFA) methods like authenticators and Face ID for accurate user verification, ensuring that only legitimate users participate.
- **Tools:** Tools for user feedback, rating systems, AI-driven fraud detection models, and biometric verification systems.
- **Skills:** Expertise in database management, security protocols, biometric authentication systems, and user interface design to seamlessly integrate these features.

2. Cost-Effective Development

- **Desired Outcome:** Minimize development costs while leveraging in-house resources.
- **Conditions:** Proper allocation of resources and utilization of existing technical expertise.
- **Tools:** Open-source frameworks, internal APIs, and cloud infrastructure (e.g., AWS).
- **Skills:** Proficiency in cloud services, frameworks like Spring Boot, and agile methodologies to ensure efficient use of resources.

3. Innovative Features and Personalization

- **Desired Outcome:** Differentiate the platform with personalized features to increase customer satisfaction and platform loyalty.
- **Conditions:** Leverage machine learning to provide personalized product recommendations and bidding suggestions.
- **Tools:** Implement AI/ML models that analyze user behavior and preferences.
- **Skills:** Expertise in machine learning, AI-driven personalization, and data analytics to create a tailored user experience that enhances customer engagement.

These factors are essential for creating a secure, cost-effective, and innovative marketplace platform.

1.5 Key Performance Indicators (KPIs)

KPI 1: Customer Trust Index

- **KPI:** Measure the **percentage of verified transactions** successfully completed without disputes or fraudulent activity.
- **Benefit:** This KPI directly reflects the platform's success in building trust with users by ensuring that transactions between verified and authenticated customers are safe and secure. A higher

percentage of completed transactions without disputes indicates a trustworthy platform, which is essential for user retention and platform growth.

- **Target:** Aim for a trust index above 95% within the first year by implementing robust user verification mechanisms such as multi-factor authentication and Face ID.

KPI 2: Transaction Completion Rate

- **KPI:** Measure the **percentage of auctions** that result in successful transactions (items sold and payments completed).
- **Benefit:** A high transaction completion rate indicates that users are finding products they want, trust the platform, and successfully follow through with purchases. This also reflects the effectiveness of the auction format and the payment process.
- **Target:** Achieve a transaction completion rate above 90% within the first year, indicating a smooth auction experience and high user satisfaction.

KPI 3: Fraud Detection Efficiency

- **KPI:** Track the **number of fraudulent accounts or transactions** detected and removed from the platform, relative to the total number of users.
- **Benefit:** This KPI measures the platform's ability to maintain a secure environment by identifying and mitigating fraud. Effective fraud detection enhances user trust and reduces potential legal or reputational risks.
- **Target:** Keep the fraud detection efficiency above 98%, ensuring that users feel safe and secure when conducting transactions.

1.6 Planned Milestones for the Software Solution

- Requirement Gathering and Analysis
- Software Architecture Design
- Development of Core Features
- User Experience Enhancement
- Integration of Security and Fraud Prevention
- Testing and Quality Assurance
- Integration of Additional Features
- Deployment and Launch
- Post Launch Monitoring

- Continuous Improvement and Updates

1.7 Planned Milestones for the Class Project

- Define Project Scope and Objectives
- Conduct Stakeholder Interviews
- Create UI/UX Design Concepts
- Develop Technical Architecture Blueprint
- Implement Core Features Prototype
- Integrate Third-Party Services
- Perform Comprehensive Testing
- Deploy to Production Environment
- Monitor and Maintain Post-Deployment
- Document Project Deliverables

1.8 Description of the System

AuctionNest is an innovative online auction platform that revolutionizes the buying and selling experience by prioritizing safety and security. Designed to compete with popular marketplaces like Facebook Marketplace, AuctionNest stands out with its robust emphasis on creating a secure environment for all users. Our platform not only facilitates seamless auction participation but also ensures that every interaction and transaction is protected by advanced verification processes. This commitment to security allows users to confidently engage in auctions, knowing their interests are safeguarded.

At the core of AuctionNest is our dedication to user safety. We implement rigorous verification measures that include identity checks, profile validation, and ongoing transaction monitoring. These processes guarantee that all participants are genuine, significantly reducing the risk of fraud and scams often associated with online auctions. By taking these extra steps, AuctionNest fosters a trusted marketplace where buyers and sellers can connect with confidence, enhancing their overall auction experience.

The primary goal of AuctionNest is to build a community that prioritizes trust, transparency, and user satisfaction. By integrating secure payment options and offering features such as user ratings and reviews, we aim to create a positive environment where users feel comfortable

bidding on and listing items. Whether individuals are looking to sell rare collectibles or purchase everyday items, AuctionNest provides a streamlined, user-friendly platform designed to meet their needs while maintaining the highest levels of security and reliability.

1.9 Competing Systems

Bonhams, eBay, Ritchie Bros, and Etsy are two well-known platforms in the competitive online auction market that are comparable to the suggested auction site but have their distinct strategies.

Bonhams: This auction house focuses on fine art, antiques, and classic cars, offering both live and online auction options. Bonhams is known for its expertise in these fields and provides a platform for buyers and sellers of high-value items, blending tradition with modern auction practices.

eBay: One of the biggest online auction sites in the world, eBay provides a wide range of products in many different categories. It is excellent at offering an interactive auction setting where buyers can place real-time bids on goods. The eBay platform is made to accommodate both bargain-hunting consumers and serious collectors looking for unique items. Its adaptable system offers multiple selling forms, such as "Buy It Now," auctions, and classified ads. eBay offers a reliable and entertaining purchasing experience because of its large user base and well-established reputation for security and customer care.

Ritchie Bros. Auctioneers: A leading platform for industrial equipment, vehicles, and real estate, Ritchie Bros. specializes in heavy equipment and machinery auctions. The site caters to businesses and individuals looking to buy or sell large-scale assets through both physical and online auctions.

Etsy: Although not a typical auction website, Etsy offers a unique marketplace for handcrafted, vintage, and one-of-a-kind products. It promotes a sense of community and appreciates artistry and workmanship. The relationship between consumers and sellers is emphasized on Etsy's platform, offering a more intimate buying experience. The auction site's objective of providing exclusive offers and hard-to-find products is in line with its concentration on unique things, even if it does not have a real-time bidding mechanism.

1.10 System Differentiation

- Charity Auctions
- AI Chat Bot integration
- Verified Users Authentication

Section 2 General System Requirements

2.1 Major System Capabilities

Specify the major system capabilities in terms of availability, target deployment environment(s), device accessibility, and/or technical capability.

- **Real-Time Bidding:** The system shall offer real-time bidding for a dynamic and engaging auction experience, allowing users to participate actively during live auctions.
- **Personalized Recommendations:** The system shall provide personalized recommendations using machine learning algorithms to enhance user experience and increase engagement.
- **User-Friendly Interface:** The system shall have a user-friendly interface designed to facilitate high conversion rates, making it easy for users to navigate and interact with the platform.
- **User Feedback and Ratings:** The system shall include a mechanism for user feedback and ratings to build trust and transparency within the marketplace.
- **Robust Security Framework:** The system shall have a robust security framework for fraud prevention, ensuring that all transactions and interactions are safeguarded.
- **Dispute Resolution Process:** The system shall support a dispute resolution process for buyers and sellers, providing a fair and efficient way to handle conflicts.
- **Concurrent User Handling:** The system shall be capable of handling a large number of concurrent users without performance degradation, ensuring a smooth user experience during peak times.
- **Third-Party Service Integration:** The system shall integrate with third-party services for payment processing and logistics, streamlining operations and enhancing user convenience.
- **Comprehensive Security Features:** The system shall incorporate comprehensive security features to protect against fraud and unauthorized access, ensuring a safe environment for all users.

2.2 Major System Conditions

Specify major system assumptions and/or constraints (aka conditions). The conditions may limit the options available to the designer/developer.

1. **Resource Utilization:** The system shall utilize in-house resources and expertise to minimize development costs, ensuring efficient use of available assets.
2. **Enhanced User Interaction:** The system shall develop features designed to enhance user interaction and engagement, fostering a vibrant auction community.
3. **KYC Protocols:** The system shall implement Know Your Customer (KYC) protocols to verify user identities and prevent fraud, ensuring a secure trading environment.
4. **Quality Control Mechanism:** The system shall establish a quality control mechanism for product descriptions using AI to ensure accuracy and consistency in listings.
5. **Simplified Product Registration:** The system shall create a user-friendly interface that simplifies the product registration process, making it accessible for all users.
6. **Dispute Resolution System:** The system shall provide a structured process for resolving disputes over product issues, promoting fairness and transparency.
7. **Integrated Communication Tools:** The system shall integrate communication tools, such as live chat and Q&A features, to facilitate real-time interaction during bidding.
8. **Responsive Customer Support:** The system shall offer customer support that is responsive and helpful, addressing user needs promptly to enhance satisfaction and trust.

2.3 System User Characteristics

Identify each type of user of the system by function, location, and type of device. The system shall have retail customers able to shop using both mobile and desktop interfaces.

- **Account Management and Order History:** The system shall provide account management and order history accessible on all devices, allowing users to track their activities easily.
- **Product Discovery:** The system shall enable product discovery with filters and reviews on all platforms, enhancing the shopping experience and helping users make informed decisions.
- **Diverse Payment Options:** The system shall offer a variety of payment options for a smooth checkout process across various devices, ensuring convenience for users.
- **Order Updates:** The system shall deliver order updates via email and SMS, keeping users informed about their transactions in real time.
- **Vendor Inventory Management:** The system shall allow vendors to manage inventory and orders through a desktop-optimized portal, streamlining their operations.

- **Admin Analytics Dashboards:** The system shall provide administrators with access to analytics dashboards on computers for tracking sales and traffic, aiding in data-driven decision-making.
- **Real-Time Shipping Information:** The system shall grant admins access to real-time shipping information on computers and tablets for efficient operational tasks.
- **User Verification and Authentication:** The system shall implement user verification and authentication for both buyers and sellers, ensuring a trustworthy marketplace and reducing the risk of fraud.

Describe the functionality required of the system.

1. **User-Friendly Interface for Buyers:** The system shall provide an intuitive interface for buyers to easily view auctions, place bids, and review purchases. It will incorporate real-time data and personalized recommendations to enhance the purchasing experience, making it accessible and engaging.
2. **Seller Auction Listings:** The system shall enable sellers to list their products for auction, allowing them to upload images, write descriptions, and set starting bid amounts. Additionally, options for instant purchases and charity auctions will be included to broaden selling opportunities and appeal to various audiences.
3. **Personalized Recommendations:** The system shall incorporate machine learning technologies to analyze user behavior and preferences, offering personalized product recommendations that increase user satisfaction and engagement throughout the auction process.
4. **Real-Time Auction Metrics:** The system shall include real-time metrics related to auctions, such as bid history and participant activity, supporting informed decision-making by users and ensuring a fair and competitive auction environment.
5. **Security Measures and Fraud Prevention:** The system shall implement robust security measures and fraud prevention mechanisms to protect users and transactions, fostering a safe online marketplace where buyers and sellers can transact with confidence.
6. **Administrative Tools for Customer Support:** The system shall provide customer support teams with administrative tools to monitor transactions, resolve conflicts, and ensure compliance with platform rules, enhancing the overall user experience.
7. **Charity Auction Features:** The system shall offer special features like charity auctions, designed to attract a wider audience and support social causes. This functionality will diversify the platform's offerings and encourage community involvement.
8. **Compliance with Legal Standards:** The system shall ensure compliance with relevant legal standards and work closely with regulatory authorities to maintain a legitimate and trustworthy platform, safeguarding the interests of all users involved.

2.5 System Integration

Describe any system integration.

1. **Secure Payment Gateway Integration:** The system shall support secure transactions by integrating with renowned payment gateways such as Stripe, PayPal, and Razorpay. This ensures a seamless payment experience for users while maintaining high-security standards for financial transactions.
2. **Shipping Carrier Collaboration:** The system shall collaborate with major shipping carriers like FedEx, UPS, and USPS to provide real-time shipping calculations and label generation. This integration will streamline the shipping process for sellers and improve the overall logistics experience for buyers.
3. **Tax Calculation Services:** To ensure sales tax compliance, the system shall utilize tax calculation services from APIs such as Avalara and Taxjar. This integration will automate tax calculations based on the user's location, simplifying the purchasing process for customers.
4. **Communication Gateways:** The system shall employ SMS and email gateways like Twilio, Amazon SNS, Mailgun, and SendGrid for timely order updates and transactional communications. This integration will keep users informed throughout their auction experience, enhancing customer satisfaction.
5. **Fraud Detection and Chargeback Protection:** To safeguard against financial risks, the system shall incorporate fraud detection tools and chargeback protection mechanisms. These integrations will help identify and mitigate potential fraud, protecting both buyers and sellers.
6. **Analytics and Marketing Tools:** The system shall leverage analytics and marketing tools like Google Analytics and Mailchimp for enhanced user engagement and site performance insights. This integration will provide valuable data to optimize the platform and improve marketing strategies.
7. **Third-Party Application Integration:** The system shall offer seamless integration capabilities with third-party applications via REST APIs. This extensibility will allow AuctionNest to connect with various services and applications, enhancing the platform's functionality and user experience.
8. **Social Media Logins and Chatbot Services:** To enrich user experience and support, the system shall enable social media logins and interactive chatbot services using tools like Dialogflow. This integration will facilitate user authentication and provide immediate assistance, improving engagement and satisfaction on the platform.

2.6 Data Components

Describe the data types and the relationships of the data within the system.

- **Employee Entity:**
 - **Fields:** EmployeeID, Name, Role, and Contact Information.
 - **Description:** This entity stores information about employees who manage and support the auction platform. The EmployeeID serves as a unique identifier for each employee, while other fields capture their names, roles (such as administrator or support staff), and contact details for internal communications.
- **User Entity:**
 - **Fields:** UserID, Username, Password, Email, and Bid History.
 - **Description:** This entity represents the platform's users (buyers and sellers). Each user is uniquely identified by UserID, and the system maintains their credentials and contact information. The Bid History field tracks all bids made by the user, allowing for easy access to their auction activity.
- **Item Entity:**
 - **Fields:** ItemID, Description, StartPrice, CurrentBid, and SellerID.
 - **Description:** The Item entity holds data related to auction items. Each item is identified by ItemID, and the system records a description, starting price, current bid amount, and SellerID. The SellerID links each item to the user who listed it for auction.
- **Bid Entity:**
 - **Fields:** BidID, ItemID, UserID, BidAmount, and Timestamp.
 - **Description:** This entity captures information about each bid placed on auction items. Each bid is uniquely identified by BidID, and it relates to a specific Item through ItemID and to the User who placed the bid via UserID. The BidAmount records the value of the bid, while the Timestamp indicates when the bid was made.
- **Category Entity:**
 - **Fields:** CategoryID and CategoryName.
 - **Description:** The Category entity organizes items into specific classifications. Each category is identified by CategoryID and has a name associated with it (CategoryName). This structure helps users browse items by category, improving navigation within the platform.
- **Relationships:**
 - **User to Bid:** There is a direct relationship where a user can place multiple bids. This relationship allows the system to track which user placed which bid on an item.
 - **Item to Seller:** Each item is associated with a seller through the SellerID. This connection enables the system to link items to users who list them, facilitating auction management and accountability.
 - **Bid to Item:** Each bid is linked to an item through the ItemID. This relationship ensures that bids can be tracked for specific auction items, providing clarity on bidding activity.
 - **Payment Entity:**
 - **Fields:** PaymentID, UserID, Amount, and PaymentStatus.
 - **Description:** This entity records payment transactions related to auctions. Each payment is uniquely identified by PaymentID and associated with a User via UserID.

The Amount represents the total payment made, while PaymentStatus indicates whether the payment was successful, pending, or failed.

Summary

The AuctionNest system's data components are interconnected through defined relationships that facilitate user interactions, item listings, bidding processes, and payment transactions. These relationships ensure that the platform operates smoothly, providing a seamless experience for both buyers and sellers.

2.7 System User Interface Requirements

Describe the System User Interface Requirements.

- The system shall ensure responsive design and intuitive navigation across all devices, offering users a seamless experience whether on desktop or mobile.
- The system shall display auction items in an organized grid layout, providing functionalities for users to sort, filter, and compare items effortlessly.
- The system shall offer detailed product pages with comprehensive information including images, descriptions, bid details, and seller profiles to aid in informed decision-making.
- The system shall integrate a dynamic bidding interface, allowing users to place, view, and update bids in real time, enhancing the competitive auction environment.
- The system shall implement secure payment gateways and a straightforward checkout process, ensuring user trust and facilitating smooth transactions.
- The system shall provide personalized recommendations and search enhancements like auto-suggest improving product discovery based on user preferences and behavior.
- The system shall feature robust administrative tools for managing auctions, users, and site content, ensuring a controlled and efficient operation of the auction platform.
- The system shall prioritize security measures, including data encryption and fraud detection mechanisms, to protect user information and transactions.

2.8 System Reporting Requirements

Describe the System Reporting Requirements.

- The system shall offer reports comparing performance across different periods to spot trends and guide strategic planning.

- The system shall track and report on user demographics, behavior patterns, and engagement metrics for targeted improvements.
- The system shall aggregate user feedback and reviews, providing actionable insights into customer satisfaction and product performance.
- The system shall report on customer service metrics, including response times and resolution efficiency, to improve operations.
- The system shall enable custom report generation based on specific criteria, with data visualization options for easy analysis.
- The system shall monitor and report on vendor sales performance, participation rates, and customer feedback.
- The system shall analyze sales data to report on seasonal trends and the effectiveness of promotional activities.
- The system shall assess and report on the performance impact of any changes made to the platform, ensuring continuous improvement.

Section 3 Security Requirements

Specify Security and Privacy Requirements for users of the system and the system.

1. Data Encryption:

- The system shall leverage HTTPS for all communications, ensuring data is encrypted during transit to protect user information from eavesdropping and man-in-the-middle attacks.

2. Password Security:

- The system shall store passwords using strong cryptographic hashing algorithms, enhancing password security and making it difficult for unauthorized users to access account information.

3. Input Validation and Sanitization:

- The system shall rigorously validate and sanitize inputs to mitigate SQL injection, Cross-Site Scripting (XSS), and other injection vulnerabilities, ensuring the integrity and security of the application.
4. **Role-Based Access Control (RBAC):**
- The system shall enforce role-based access controls, defining clear permissions for different user roles (e.g., buyers, sellers, administrators) to restrict unauthorized access to sensitive functionalities and data.
5. **Audit Logs:**
- The system shall maintain comprehensive audit logs for all user activities and data modifications, providing a clear record of actions taken within the platform for accountability and traceability.
6. **Secure Configurations:**
- The system shall adopt secure configurations for servers and network devices, regularly updating them to shield against exploitation and potential vulnerabilities.
7. **Data Encryption for Sensitive Information:**
- The system shall encrypt sensitive user data, such as payment information, ensuring that even if data is accessed, it remains protected from unauthorized users.
8. **Regular Security Assessments:**
- The system shall conduct regular security assessments, including DDoS defense strategies and penetration testing, to identify and address potential vulnerabilities proactively.
9. **User Verification and Authentication:**
- The system shall implement a robust user verification and authentication process for both buyers and sellers, ensuring that all participants are genuine and reducing the risk of fraudulent activities.
10. **Fraud Detection Mechanisms:**
- The system shall incorporate fraud detection tools and chargeback protection mechanisms to safeguard against financial risks, ensuring a secure environment for transactions.

These security requirements are essential to establish AuctionNest as a trustworthy and secure online auction platform, protecting both user data and the integrity of the auction process.

Section 4 Support Requirements

Specify Support Requirements for the system.

- **Account Management Support:**
 - The system shall offer account management support, including assistance with password resets, account recovery, and profile updates, ensuring users can easily manage their accounts.
- **Seller Guidance:**
 - The system shall provide step-by-step guidance for sellers to list their products, set auction parameters, and manage listings, facilitating a user-friendly experience for new sellers.
- **Bidder Support Services:**
 - The system shall offer support services for bidders, including guidance on automated bid settings, auction participation rules, and strategies to enhance their bidding experience.
- **Payment Processing Assistance:**
 - The system shall assist users with payment processing issues, invoice queries, and transaction dispute resolutions, ensuring a smooth and secure transaction process.
- **Quality Control Checks:**
 - The system shall implement quality control checks for product listings to ensure compliance with standards, maintaining the integrity of the marketplace and enhancing user trust.
- **Fraud Reporting Resources:**
 - The system shall provide resources and support for identifying and reporting fraudulent activities, empowering users to contribute to a safe auction environment.
- **Educational Content:**
 - The system shall offer tutorials, webinars, and educational content on auction strategies and platform features, helping users maximize their engagement and success on the platform.

- **Technical Issue Resolution:**

- The system shall address technical issues related to site navigation, feature access, and system errors, ensuring a smooth user experience and minimizing disruptions.
- These support requirements are essential to enhance user satisfaction, foster engagement, and create a positive experience for both buyers and sellers on the AuctionNest platform.

Section 4 Training Requirements

Specify Training Requirements for the system.

- The system shall offer interactive onboarding for new users through guided tours and checkpoints, ensuring proficiency in site navigation and auction participation.
- The system shall provide specialized workshops for sellers on strategies for successful auctions, effective product showcasing, and listing optimization.
- The system shall conduct security awareness training, emphasizing secure transactions, data privacy, and scam prevention for all users.
- The system shall deliver targeted training modules for customer support staff on inquiry management, dispute resolution, and CRM tool usage.
- The system shall make technical documentation available for developers, including API guidance, system integration, and customization procedures.
- The system shall host webinars to introduce new features and updates, facilitating user familiarization through walkthroughs and Q&A sessions.
- The system shall create a self-help resource library, featuring FAQs, troubleshooting guides, and user experience optimization tips.
- The system shall provide training on using performance analytics for sellers, enabling them to analyze auction performance, buyer engagement, and sales trends for better decision-making.

Section 5 References

Provide a list of all documents and other sources of information referenced in this document and utilized in its development. Include for each the document number, title, date, and responsible office/author.

Document No.	Document Title	Date	Author
1	Identification of benefits, challenges, and pathways in E-commerce industries: An integrated two-phase decision-making model	2023	Srikant Gupta, Pooja.S. Kushwaha, Usha Badhera ^c , Prasenjit Chatterjee ^{d e} , Ernesto D.R. Santibanez Gonzalez ^f
2	Networks, Crowds, and Markets: Reasoning about a Highly Connected World.	2020	David Easley and Jon Kleinberg
3	Software implementation plan: 6 crucial steps	2024	Preethi Ragu
4	Design Thinking (DT)	2022	Tim Brown
5	Bidding for Bidders? How the Format for Soliciting Supplier Participation in NYOP Auctions Impacts Channel Profit	2016	Scott Fay, Robert Zeithammer

Section 6 Glossary

Define all terms and acronyms required to properly interpret the requirements contained within this document.

- **UI/UX** - User Interface/User Experience: Refers to the overall experience a user has with a digital interface, including its layout and how easy it is to use.

- **KPI** - Key Performance Indicator: A measurable value that demonstrates how effectively a company is achieving key business objectives.
- **AI** - Artificial Intelligence: The simulation of human intelligence processes by machines, especially computer systems.
- **KYC** - Know Your Customer: A process of a business verifying the identity of its clients and assessing their suitability, along with the potential risks of illegal intentions towards the business relationship.
- **HTTPS** - Hypertext Transfer Protocol Secure: An extension of the Hypertext Transfer Protocol (HTTP) for secure communication over a computer network.
- **SQL** - Structured Query Language: A domain-specific language used in programming and designed for managing data held in a relational database management system.
- **XSS** - Cross-Site Scripting: A security vulnerability typically found in web applications, which allows attackers to inject client-side scripts into web pages viewed by other users.
- **DDoS** - Distributed Denial of Service: A type of cyber-attack that disrupts the normal traffic of a targeted server, service, or network by overwhelming the target or its surrounding infrastructure with a flood of Internet traffic.
- **CRM** - Customer Relationship Management: Practices, strategies, and technologies that companies use to manage and analyze customer interactions and data throughout the customer lifecycle.
- **API** - Application Programming Interface: A set of functions and procedures allowing the creation of applications that access the features or data of an operating system, application, or other service.
- **SMS** - Short Message Service: A text messaging service component of most telephone, Internet, and mobile device systems.
- **REST** - Representational State Transfer: A set of architectural principles for designing networked applications.

- **FAQ** - Frequently Asked Questions: A reference document that lists and answers commonly asked questions about a product, service, process, etc.