

Assignment 1.1 Scope Document

[Team 7] Tri-Star Alliance: Sameer Shaik, Prakya Tummala, Vivek Kommareddy.

System/Project Scope	Critical Success Factors (CSFs)
<p><i>Describe the need for this Software Solution.</i></p> <p>AuctionNest aims to revolutionize the online marketplace by providing a dynamic platform where users can buy and sell goods through a lively and transparent bidding process. Catering to the growing demand for a more engaging shopping experience, the platform offers exclusive products at competitive prices. In addition, AuctionNest prioritizes user safety by ensuring that all users are thoroughly verified, and products are authenticated, giving consumers confidence in the legitimacy of their purchases. This approach guarantees a secure and trustworthy environment for both buyers and sellers, making the platform a safe and enjoyable place to shop.</p> <p><i>Describe the importance of this Software Solution.</i></p> <p>This software solution is crucial in creating a dynamic marketplace that adapts to the ever-changing preferences of online shoppers. It enhances user engagement by providing a transparent and interactive bidding process, encourages competitive pricing, and broadens access to rare and unique products. For sellers, the platform offers a novel way to increase visibility and reach a broader audience. Additionally, the solution's emphasis on user verification builds a foundation of trust, ensuring that all participants are genuine and that transactions are secure. This increases user confidence and cultivates a trustworthy environment, which is essential for sustained growth in the online marketplace.</p> <p><i>Describe who this Software Solution will benefit.</i></p> <p>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.</p>	<p><i>Describe three success factors for this Software Solution.</i> <i>CSFs define the factors that must be in place to deliver the project goals. These answer the questions of:</i></p> <ul style="list-style-type: none">• <i>What factors are likely to lead to our desired outcome?</i>• <i>What conditions must exist to create that outcome?</i>• <i>What tools do we need to achieve our goals?</i>• <i>What skills do we need to achieve our goals?</i> <p>1. Customer Trust and Transparency</p> <ul style="list-style-type: none">• 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. <p>2. Cost-Effective Development</p> <ul style="list-style-type: none">• 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. <p>3. Innovative Features and Personalization</p> <ul style="list-style-type: none">• 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.

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	<ul style="list-style-type: none">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. <p>These factors are essential for creating a secure, cost-effective, and innovative marketplace platform.</p>
System Users and Usage	Key Performance Indicators (KPIs)
<p><i>Identify the Stakeholders.</i></p> <ol style="list-style-type: none">Project TeamPotential Buyers and SellersInvestors and SponsorsRegulatory Authorities <p><i>Identify the roles of the Stakeholders.</i></p> <ol style="list-style-type: none">Project Team: Design, develop, and maintain the auction site.Buyers and Sellers: Use the platform for transactions.Investors and Sponsors: Provide financial support and oversight.Regulatory Authorities: Ensure compliance with legal standards. <p><i>Identify the System Users.</i></p> <ol style="list-style-type: none">Buyers looking for products.Seller's listing productsCustomer support teams <p><i>Identify how the System will be used.</i></p> <ol style="list-style-type: none">By Buyers: Viewing auctions, placing bids on goods, and reflecting on their purchases will be their main ways of interacting with the system. Real-time data combined with personalized recommendations will improve their purchasing experience.By Sellers: When listing their goods for auction, sellers will use the platform to include images, descriptions, and beginning bid amounts. Features such as choices for rapid purchases and charity auctions offer more chances for selling.	<p><i>Identify two KPIs for this Software Solution.</i></p> <p><i>A key performance indicator (KPI) is a value used to measure effectiveness of this Software Solution.</i></p> <ul style="list-style-type: none"><i>Indicator 1: A KPI related to the benefit of the outcome of this Software Solution.</i><i>Indicator 2: A KPI related to the benefit of the outcome of this Software Solution.</i> <p>Indicator 1: Customer Trust Index</p> <ul style="list-style-type: none">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. <p>Indicator 2: Transaction Completion Rate</p> <ul style="list-style-type: none">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.

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<p>3. By Customer Support Teams: Monitoring transactions, resolving conflicts, and offering support through administrative tools. They are going to make sure that the platform's rules are followed and provide assistance in maintaining an equitable and safe marketplace. Team Tri-Star Alliance</p>	<p>Indicator 3: Fraud Detection Efficiency</p> <ul style="list-style-type: none">• 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.
<p>Define the Organization</p>	<p>Planned Milestones for the Software Solution</p>
<p><i>Who is the organization?</i></p> <p>Auction Team</p> <p><i>What is the industry of the organization?</i></p> <p>Auction Team</p> <p><i>Who is the Business Sponsor?</i></p> <p>Professor Jon McKeeby</p> <p><i>Who is the Technical Sponsor?</i></p> <p>Professor Jon McKeeby</p> <p><i>Who will sign off on the Systems Requirements Document?</i></p> <p>Professor Jon McKeeby</p>	<p><i>Describe the major milestones to implement this Software Solution</i></p> <ol style="list-style-type: none">1. Requirement Gathering and Analysis2. Software Architecture Design3. Development of Core Features4. User Experience Enhancement5. Integration of Security and Fraud Prevention6. Testing and Quality Assurance7. Integration of Additional Features8. Deployment and Launch9. Post Launch Monitoring10. Continuous Improvement and Updates

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Background of Need/Problem	Planned Milestones for this Class Project
<p><i>Describe what others have done related to solve a similar need.</i></p> <p>Examining prominent auction sites such as Heritage Auctions, eBay, Bonhams, and various niche platforms reveals that they offer essential features like customer feedback systems, bidding mechanisms, and product registration. These platforms incorporate advanced tools to enhance user experience, minimize fraud, and resolve disputes effectively.</p> <p><i>Describe the need to develop versus procuring an existing solution.</i></p> <p>Developing a tailored auction website allows for personalized features and can foster increased competition through customization. However, this approach requires substantial time, financial resources, and expertise. On the other hand, procuring an existing solution can be more cost-effective and quicker to implement, as it provides access to a pre-existing user base, established support structures, and faster deployment. Yet, such solutions may lack uniqueness and offer limited customization options.</p> <p><i>Provide two (2) references in APA format.</i></p> <ol style="list-style-type: none">1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3927817/2. https://www.researchgate.net/publication/46651416_Reputation_and_Internet_Auctions_eBay_and_Beyond	<p><i>Describe the major milestones for this Class Project</i></p> <ol style="list-style-type: none">1. Define Project Scope and Objectives2. Conduct Stakeholder Interviews3. Create Designs4. Develop Technical Architecture Blueprint5. Implement Core Features Prototype6. Integrate Third-Party Services7. Perform Comprehensive Testing8. Deploy to Production Environment9. Monitor and Maintain Post-Deployment10. Document Project Deliverables

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References

Please provide at least five (5) references for each assignment in APA format.

1. E-commerce Software Solution KPIs:

<https://fastercapital.com/content/Auction-Key-Performance-Indicators--Maximizing>Returns--Auction-KPI-Strategies.html>
<https://www.clearpointstrategy.com/blog/18-key-performance-indicators#:~:text=We've%20broken%20down%20our,well%2Dbalanced%20across%20the%20organization.>
<https://www.investopedia.com/terms/k/kpi.asp#:~:text=Commonly%20used%20KPIs%20include%20financial,business%20for%20long%2Dterm%20success.>
<https://www.qlik.com/us/kpi#:~:text=KPI%20stands%20for%20key%20performance,forward%20at%20the%20strategic%20level.>
<https://www.klipfolio.com/resources/kpi-examples>

2. Planned Milestones for the Software Solution:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3927817/>
<https://relevant.software/blog/software-development-process/>
<https://www.teamgantt.com/blog/the-how-and-why-of-using-milestones-in-your-project-plan>
<https://www.rocketlane.com/blogs/software-implementation-plan-template#:~:text=The%20implementation%20process%20typically%20involves%20several%20steps%2C,ensure%20a%20smooth%20and%20successful%20implementation.%203.>
<https://www.scnsoft.com/software-development/build-a-software#:~:text=Create%20a%20requirements%20specification.,Set%20the%20ready%20solution%20live.>

3. Class Project Milestones:

<https://relevant.software/blog/software-development-process/>
<https://www.teamgantt.com/blog/the-how-and-why-of-using-milestones-in-your-project-plan>
<https://gratasoftware.com/wireframing-and-prototyping-building-the-blueprint-for-success/>
<https://www.projectmanager.com/blog/milestones-project-management>
<https://www.interaction-design.org/literature/topics/design-thinking?srltid=AfmBOopVkoG3bUar6UAY8feuWYAYqIHjYdCCYfdyQFcjVOsqagN6PLhl>

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4. Need/Problem Background:

<https://www.sciencedirect.com/science/article/pii/S2666412723000156>
<https://www.anderson.ucla.edu/faculty/robert.zeithammer/StrategicBiddingCapIdeasArticle.pdf>
<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=852d245611e41cf4c76fb690478b985c52f4b750>
<https://www.anderson.ucla.edu/faculty/robert.zeithammer/bidding4bidders.pdf>
<https://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch09.pdf>

5. Stakeholder System Users:

<https://www.boreal-is.com/blog/what-is-stakeholder-analysis/>
<https://www.teamwork.com/project-management-guide/project-stakeholders/>
<https://www.investopedia.com/terms/s/stakeholder.asp#:~:text=The%20primary%20stakeholders%20in%20a,%2C%20governments%2C%20and%20trade%20associations.>
<https://www.alva-group.com/blog/types-of-stakeholders-and-their-role-in-the-company/#:~:text=As%20a%20general%20rule%2C%20stakeholder,community%20groups%20and%20media%20influencers.>
<https://www.indeed.com/career-advice/career-development/key-stakeholders#:~:text=Internal%20key%20stakeholders%20have%20both,personal%20finances%20in%20your%20company.>