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**CS691 - Computer Science, Spring 2016**

**Project Initiation Document**

**Project: Bundle Bid – Wholesale Bidding E-commerce Website**

Project Manager: Siddharth Jhaveri

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Completion Date: 12-02-2020

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Document Details

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|  |  |  |  |

Approvals

This document requires the following approvals:

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# Document Purpose

This document defines the Project Initiation Document (PID) for our project. The purpose of this document is to define the project and form the basis for its management and the assessment of overall success. It will communicate the scope, objectives, tasks, roles and responsibilities, costs and deliverables relating to Bundle Bid.

The document will cover the following topics:

* An outline of the approach to be adopted for the implementation of Bundle Bid
* Details of the roles and responsibilities, functions and activities
* Details of the processes and products to be covered and the associated benefits and outcomes together with the impact they will have on the business
* Quality records, risks, project controls and exceptions

This document will also serve as a means of communicating key aspects of the project to Bundle Bid. Once approved, the Project Initiation Document will be the baseline against which the success of this project will be measured.

**Background to the Proposed Work**

There are various bidding websites, the most common and well-known example being Ebay but these are only geared towards end-consumers or retailers. Also a lot of wholesale websites exist, like AliBaba, but none that allow the businesses or end retailers to buy products in huge quantities at large at best possible mass prices. We aim to bridge the gap between these two worlds with our website – Bundle Bid – a wholesale bidding E-commerce website for retailers or wholesalers to buy goods in large quantities by fair bidding prices directly from the manufacturers or packaging factories to avoid third party costs, overbearing shipping charges and paying the least amount possible for a particular pellet or more of commodity/goods. There also will be a shipping option for the buyers or else they can also pick it up from the manufacturers themselves. The main idea behind developing this new ecosystem for suppliers and wholesalers is to simplify the process of acquiring products in huge quantities directly from the manufacturer at the least price possible for them. Some of the possible features that the site will aim for would be:

1. Live auctions of wholesale products
2. Direct description and details from the manufacturer themselves
3. Option of shipping available if needed
4. Serving as a point of contact between the buyer and the seller
5. A variety of products that cater to most market types

# Vision

The project aims for establishment of an ecosystem where wholesalers/retailers can rely on the website to buy goods in bulk directly from the manufacturers with the correct description at the best possible price in the bidding auction or pay a max price if provided by the company to buy it right away and not worry about the shipping if they don’t want to look after it.

# Project Objectives

* A wholesale Ecommerce platform with a build-in bidding system
* This online bidding platform allows sellers to wholesale their products at the best price possible and allows buyers to purchase at the fairest price.
* Two target users: Online wholesaler and Online shopper who wants buy items in bulk. The most important customer is online shopper who make purchase through the app
* The app takes a percentage from each sale to generate profit
* Register user with login id and password
* Buyer can search and find products using filters like category, price and name of the products.
* Payment gateway.

# Project Scope

Our scope is to create a online bidding system called Bundle Bid website which deals with following scope categories.

Technical:

* To apply the best UX/UI practices.
* To decide what DB to use.
* To discuss roles and responsibilities in a team.
* To install the required software.
* To ensure that the team members have necessary skills.
* To set up development, staging and production environments.

Functional:

* Both buyer and seller have to register and login
* User will be able to view the products and bid online.
* User will be able to bid multiple times as the bidding price increases.
* If the user wins the bid, they will be provided with confirmation on Email or contact number after successful winning the bid and payment procedure.
* A seller added a product with its description and a starting bidding price.

**RELEASE 1:** Static website

**RELEASE 2:** Dynamic and Responsive Website with connection to a Database Repository

**RELEASE 3:** Implementation of a payment gateway

# Business Case

|  |  |
| --- | --- |
| **Application Name** | BundleBid |
| **Type of business model** | A wholesale Ecommerce platform with a build-in bidding system  (Brokerage) |
| **Target audience of external users**  **(Customer Segments)** | Two target users: Online wholesaler and Online shopper who wants buy items in bulk  The most important customer is online shopper who make purchase through the app  The app takes a percentage from each sale to generate profit |
| **Groups of internal stakeholders, users** | Application Development Group  Accounting Group (accounts payable, receivable)  Customer Support Team  Advertising Management Group |
| **Value propositions** | We provide a safe and fair online selling and bidding platform to customers who wants to sell and buy wholesale products online with the fairest price.  Our online bidding platform allows sellers to wholesale their products at the best price possible and allows buyers to purchase at the fairest price. |
| **Key resources** | Key Resources:  Intellectual Resource: the online wholesale platform  Physical resources: Online wholesaler with products ready to be sold and shipped  Distribution Channels:  We partner with various shipping companies to provide options for buyers to choose from, such as FedEx, UPS, DHL, and etc.  Customer Relationships:  For buyers: Trustful platform that verifies the authenticity of the sellers and resellers  For Sellers: Customer services and timely payment processing  Revenue Streams?  Percentage of final sale amount  A yearly membership fee from the wholesalers |
| **How the system is used** | For wholesalers, they look to expending their revenue stream and sell more products. Wholesalers and manufactures can enlist their products on our platform and bid to the best price, as well as cutting the middleman cost.  For buyers, they can compare price and bid for the products they need within their price comfort zone. Also, the bidding system provide a channel to monitor the market price for a particular products, which make the market more transparent. |
| **Revenue generation, Revenue streams** | A percentage fee from each sale  A yearly membership fee from the wholesaler |
| **Key Partners/Suppliers**  **(Stakeholders)** | Key Suppliers: wholesalers and manufacturers  Key Partner: shipping companies |
| **Expected Benefits** | Revenue stream from sale fees and subscription fee  Data from the platform |
| **Known Prototypes** | Alibaba as the wholesale platform prototype  eBay as the bidding system prototype |

# Assumptions

|  |  |  |  |
| --- | --- | --- | --- |
| Participation Time (8hr/week) | All Members | Completed | All members have decided to at least provide 4 hours per week to this project |
| Meeting (Once every week) | Manager | Completed | Manager will schedule one meeting every week |
| Updating Skill | Business Analyst | In Process | Business Analyst will provide specific ‘Required Skills for this Week’ in first meetings of every week |
| Teamwork | Manager | In Process | Manager will keep details of all Modules and will assign ‘Single or Team’ work on specific modules. |
| Use Same Technology for development | Business Analyst | In Process | Business Analyst will keep the track of latest technologies for the development |

# Constraints

* **Procurement rules:**

1. Bidder Eligibility: Bidder must be at least 18 years of age and able to form legally binding contracts under applicable law.
2. Auction Close: If an item is offered for online prebidding only, then bidding for the item will continue during a silent/live event auction and auction close refers to the end of bidding during the silent/live event auction. Otherwise auction close means the end of online bidding or the end of online fixed-price item sale for the item.
3. Your Bid or Purchase is a Contract
4. When you place a bid, you enter a legally binding contract to purchase the item from the seller if you are the winning bidder. You are the winning bidder if your bid is the highest bid at Auction close and your bid accepted by the seller. When you purchase a fixed-price item, you enter into a legally binding contract to purchase the item from the seller.
5. Payment Terms : If you are a winning bidder or purchase a fixed-price item, you agree to pay the seller the full amount of your winning bid ( for biddable items ) or the sale price ( for fixed-price-items) plus any applicable sales or use tax on your purchase, as well as any applicable shipping or delivery charges. You agree to honor the seller’s requirements regarding method and time of payment.
6. Seller’s Terms: When you place a bid on an item or purchase a fixed-price item, you are agreeing to any specific terms and conditions imposed by the seller and included by the seller in the item’s description ( except in the case that such terms would violate the law or conflict with Bundle Bid
7. Terms of Service).
8. All Bids are Final: Once you have placed and confirmed a bid, your bid cannot be retracted (except in the case that the completion of the transaction would violate the law)
9. Tied Bids: In the case of two bidders placing the same maximum bid, the bid first received will be deemed the leading bid.
10. Government Regulations and Taxes: You are solely responsible for compliance with any Federal, state or local tax laws governing your purchase. It is your responsibility to report and pay any applicable taxes.
11. Auction Changes: Sellers reserve the right to add or remove items from the online auction at any time without notice.
12. Acceptance of Terms of Service: You must read, understand, accept and comply with the Bundle Bid Terms of Service for Bidders.

* **Deadlines:**

Deadlines introduce non-stationarity into the search problem and leads to bids increasing with the duration of search. If the consumer reaches his deadline, he will purchase the item at posted price but before his deadline he might win it in an auction at a lower price.

* **Requirements:**

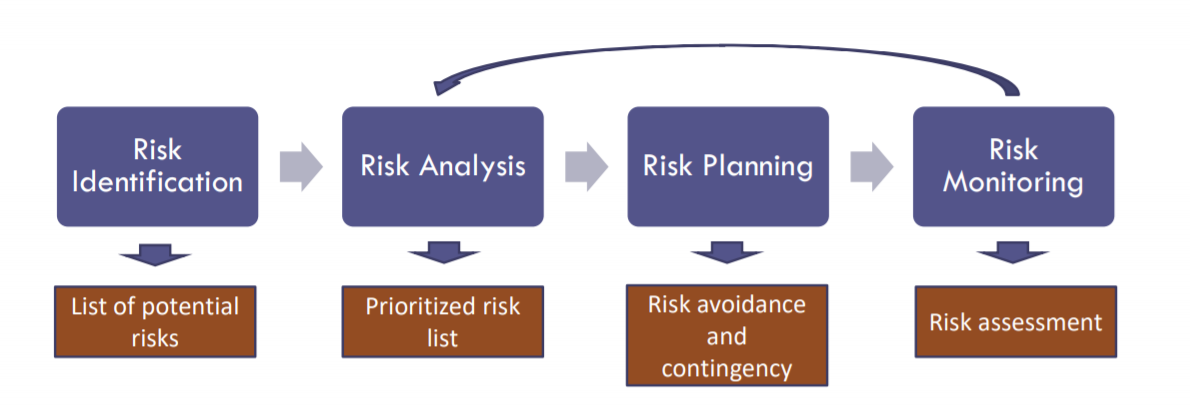
1. User need to Register to system and get an account name they prefer with password
2. Registered users can
   1. Post an item for auction with basic details and starting price, as well as bid closing date
   2. View items posted for bidding
   3. Make a bid on an item for auction
   4. Send invitation to known bidders to make a bid on their items. They can make the bid global or specific to a group of people (only invited people will see the bid). When the invites receive invitations, they can join the bid or not.
   5. Ask the auctioneer details about the product they want to bid on
3. Every bid will have a time stamp of when it was made, and every user involved in the bid will be notified when a bid is made, and their time stamp will be corrected.
4. When they make a bid, their timestamp will also be corrected on every item they are involved in bidding.
5. Each registered user will see from the database.
   1. Their item list and bids on their items
   2. The items they are currently making a bid on
   3. The max bid on the items they are bidding on and also on the items they own
6. When the time of the bid is up all involved users will be notified of the winner and no further bid can be made. The winner will send a message (is meant to be money) to the owner and the owner will reply back (Is meant to be the item info being shipped back)
7. GUI is a must for all users from registration, login and viewing and managing bids.
8. Additionally:
   1. Attach Images of the item
   2. Users can view multiple bids at a time without closing the view of one.

* **Limitations:**

1. Leading suppliers may not tender
2. Barriers to communication between supplier and customers
3. The cost-plus phenomenon
4. Use of cheaper, inferior quality materials and/or labour
5. Safety shortcuts
6. Competitive bidding can be extremely slow
7. Insufficient profit margin to allow for investment in research and development, modern technology, or equipment.

# Risk Management Strategy

**RMS Diagram:**



Risk management is one of the most import job duties of a project manager. The process can be divided into four part: risk identification, risk analysis, risk planning, and risk monitoring;

* Risk identification is the process of identifying a list of potential risks that may occur during the project.
* Risk Analysis is the process to analyse the list of risk identified and prioritize the risks that need to be addressed base on its impact and probability.
* Risk Planning is the process to plan the reaction to a risk occurrence. This step lays out the plans on how to handle and react to an occurring risk. It is very important because a timely and correct reaction can help to reduce the risk impact to the minimum when risk occurs.
* Risk monitoring is a continuous action that oversee the project in case of risks occur. A good risk monitoring process help the group respond to a risk in a timely matter.

**Project Risk:**

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Probability | Impact | Mitigation Method |
| Loss of talents and core staffs / Team Reconstruction | low | High | Maintaining a competitive compensation plans and periodic check in with employees |

**Product Risk:**

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Probability | Impact | Mitigation Method |
| Application or system failure or Corruption | Medium | High | Maintaining constant backup of the system and database;  Continuously monitor online application and its resource utilization rate;  Have an on-call team in place to immediately react to issues 24/7; |
| Outdated technologies and skill sets | Low | Medium | Implementing education program to help staffs maintain up to date skill sets;  Constant research on new technologies and push updates; |
| Data securities and privacy issues | Medium | High | Maintain up to date cybersecurity technologies and maintain sensitive dates in secure environments |

**Business Risk:**

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Probability | Impact | Mitigation Method |
| Misleading Product Information | high | Medium | Implement policies that promote honesty and punish fraudulent actions; |
| Shipment and transportation Issues | Medium | Low | Establish contract with third party shipment agencies and custom clearance agencies;  Offer additional insurance option for buyers; |
| Fraudulent Seller | Low | Low | Implement policy that payments to sellers are distributed in instalments over a reasonable period;  Actively Investigate claimed fraudulent actions and permanently ban dishonest seller; |

We will use the following as our main strategies during the project development:

* **Risk Avoidance strategy:**  we want to avoid risk before it occurs. We establish and implement methods and policies that can help us avoid risks before occurrences. For example, we understand that product shipments require significant resources and we are unable to step into that industry. We want to avoid the risk of lost/damaged packages and custom clearance issues. Thus, we partner with third parties to avoid those risks.
* **Risk Control / Mitigation:** in situation where we cannot avoid the probably of risk occurrences, we establish policies to timely control the impact to the minimum. For instance, we understand that we cannot avoid dishonest sellers completely. We set policies to minimize the negative impact of dishonest sellers.
* **Accept Risk:** in case of risk that cannot be avoid, we accept such risk and budget for its occurrences. For example, we accept the risk of outdated technologies. We budget for technology conferences and periodic training for our development teams.
* **Transfer Risk:** we partner with third parties to transfer some of the risks. For example, we outsource shipment to shipping companies and custom clearance duty to custom clearance agencies. In case of lost/damaged packages or custom clearance problems, we have the third party liable.

# Deliverables

|  |  |  |
| --- | --- | --- |
| No | Artifact Name | Responsible Party |
| 1 | **Project proposal** | **Project Manager** |
| 2 | **PID document** | **Project Manager / Product Owner** |
| 3 | **Project Plan** | **Project Manager** |
| 4 | **RACI** | **Project Manager** |
| 5 | **Requirements types** | **Lead BA** |
| 6 | **Analysis diagrams** | **Lead BA** |
| 7 | **User requirements** | **Product Owner** |
| 8 | **RCT (includes func. decomp., supplementary reqs)** | **Lead BA** |
| 9 | **Functional requirements** | **Lead BA** |
| 10 | **DB model** | **DBA** |
| 11 | **ER diagrams** | **DBA** |
| 12 | **Architecture diagrams** | **Lead Developer / DBA** |
| 13 | **Use-Case Diagram (UML)** | **Lead Developer** |
| 14 | **Activity Diagram (UML)** | **Lead Developer** |
| 15 | **Class Diagram (UML)** | **Lead Developer** |
| 16 | **Sequence Diagram (UML)** | **Lead Developer** |
| 17 | **BRM Diagram** | **Product Owner** |
| 18 | **Test documentation** | **Lead QA** |
| 19 | **Application Demo** | **All Teams** |

# Stakeholders

The Stakeholders of BundleBid application are any person and entity that support the daily operation of BundleBid.

External Stakeholder:

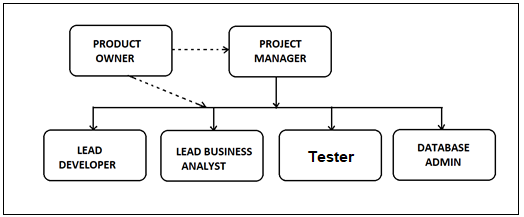
|  |  |
| --- | --- |
| Stakeholder | Interest |
| Manufacturers | Application supplier who enlists bundled products on the application platform to sell directly to buyers;  Direct Buyer who bid and purchases products through the application and to use purchased products in its daily operations |
| Wholesalers | Application supplier who enlists bundled products on the application platform to sell directly to buyers |
| Local Business | Direct Buyer who bid and purchases products through the application and to use purchased products in its daily operations |
| Shipping Companies (Fedex, UPS, DHL, USPS and etc.) | Partners with the application to provide shipping service to help deliver products to the bundle buyers |
| Custom Clearance Agent (Livingston International, Clearit USA, and etc. ) | Custom clearance agents who partnered with BundleBid to provide custom clearance services to international buyers and sellers |

Internal Stakeholder:

|  |  |
| --- | --- |
| Stakeholder | Interest |
| Team members | Design and develop an user friendly application to provide reliable and secure BundleBid services to end users |
| Investors | Provides valuable investments and maintain application’s smooth development and operation |
| Product Owner | Provides insight and blueprint of the application |
| Administrator | Manage administrative and logistic works to ensure smooth development and operation |

# Project Team

Organization Chart:



Team Members of the Project:

Project Manager- Siddharth Jhaveri

Product Owner- Sweta Bitla

Lead Developer- Ziteng Sun

Lead Business Analyst- Shivani Gumpula

Lead Tester- Nishant Hulwan

Database Admin- Anushree Khopkar

**RACI Table:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Project Roles** | | | | | |
| **Process Area** | **Project Tasks** | Project Manager | Product Owner | Developer | BA Lead | Tester | DBA |
| Project Management | Develop a project plan | A,R | C | C | C | C | I |
| Provide cost estimate | A,R | C | I | C | C | I |
| Hire resources | A,R | C | R | I | R | C |
| Establish a project portal on SharePoint | A,R | I | C | I | R | I |
| Maintain a project risk and issue log | A,R | I | C | C | C | C |
| Provide project status reports | A | I | R | I | R | I |
| Requirements | Perform requirements analysts | A | I | C | R | I | I |
| Gather business requirements | A | I | C | R | I | I |
| Produce functional requirements | A | I | C | R | C | I |
| Design | Produce high-level design specs | A | I | R | I | I | C |
| Produce data model | A | I | C | C | I | R |
| Produce detailed design specs | A | I | R | C | I | R |
| Coding | Establish a code repository | A | I | R | I | I | I |
| Develop component code | A | I | R | I | I | I |
| Testing | Develop a test plan | A | I | C | C | R | C |
| Establish a test repository | A | I | C | I | R | I |
| Develop test specifications | A | I | I | I | R | I |
| Execute testing, report defects | A | I | I | I | R | I |
| Conduct defect review calls | A | I | C | C | R | C |
| Produce, deliver defect metrics | A | C | I | I | R | I |
| Support test environments | A | I | R | I | C | R |
| Deployment | Produce a deployment plan | A | I | R | I | I | R |
| Produce deployment procedures | A | I | R | I | I | R |
| Deploy software into production | A | I | R | I | C | R |

# 

# Project Plan

Bundle Bid plans to follow agile methodology, as it implies an iterative and incremental method of management. It focuses on helping teams in an evolving landscape and maintaining a focus on the rapid delivery of business value. In agile methodology, the risk is reduced to the great extent. In this methodology, testing is done in each processing cycle, which involves customary checkups of product to see whether it is working properly or not, which provides high quality product.

|  |  |  |
| --- | --- | --- |
| **Project Phase** | **Activity** | **Task Owner Name** |
| **Project Initiation** | Discuss project proposals | ALL |
| Confirm Project Team Roles | ALL |
| Develop two business cases | Ziteng Sun, Nishant Hulwan |
| Develop Project Initiation Document (PID) | Siddharth Jhaveri |
| Produce initial Project Plan, RACI | Siddharth Jhaveri |
| **Requirements Definition** | Produce BRM diagram, define User Roles | Swetha Bitla |
| Produce Context Diagram, Define System Interfaces | Anushree Khopkar |
| Define Business Requirements | Shivani Gumpula |
| Agree to System Requirements types | All |
| Define Functional Decomposition | All |
| Produce RCT document | Shivani Gumpula |
| Decide which features to implement this semester | All |
| Produce analysis diagrams (UML, DFD) | Shivani Gumpula |
| Define functional requirements (User Stories) | Shivani Gumpula |
| Update Project Plan with additional requirements tasks | Siddharth Jhaveri |
| **Design** | Architecture design (2 diagrams) | Ziteng Sun |
| Database Design (ERD, Table spec) | Anushree Khopkar |
| System Interface Design | Ziteng Sun |
| User interface design | Shivani Gumpula |
| **Code** | GUI & Functionality Detailed Design | Ziteng Sun |
| Coding & Implemenation | Ziteng Sun |
| Integration & Testing | Plan testing, produce a Test Plan document | Nishant Hulwan |
| Evaluate Features to be Tested | Nishant Hulwan |
| Design Test Cases | Nishant Hulwan |
| Execute Test Cases | Nishant Hulwan |
| Anaylze Test Results | ALL |
| Project Presentation | Prepare Application Demo for the Presentation | ALL |

# Project Controls

* Meetings are held every week in-person, organized by the project manager. All the team members are allotted their work that must be completed before each week to monitor progress and allow room for improvements/ changes before the next week’s schedule commences.
* The Project Manager will prepare regular reports for the Professor as well as the Stakeholders. Reports are prepared based on the team weekly meetings, previous advancements and target milestones.
* Communication will be done via Email, WhatsApp & Slack within the project team. Email exchange will be the primary means of communication among stakeholders.
* Project manager maintains the weekly meeting minutes & the progress of the project phases based on everyone’s opinion after every meeting and to makes sure the team meets all the deadlines.
* Google Drive, Email Attachments, Slack and Whatsapp will be used as a repository for the official documentation and will contain all project documents and updates by the manager and for sharing all the files.

# Communication Plan

|  |  |  |  |
| --- | --- | --- | --- |
| Stakeholder | Frequency | Type | Purpose |
| Project Manager | Daily | Email, Slack for Business, personal meetings, phone, whatsapp | To discuss work in progress, implementation, estimates, requirements prioritization, role and responsibilities within the team. |
| Project Team | Daily | Email, Slack for Business, personal meetings, phone, whatsapp | To discuss working progress, features, new requirements, mission or incorrect requirements, problems facing and outcomes and their solutions. To ensure that the team is meeting weekly requirements. |
| Business Analyst team | Daily | Email, Slack for Business, personal meetings, phone, whatsapp | To maintain purchase chain and bidding on products on daily operations |
| End Users | Potentially during the testing phase and after release. | Email, online testing sessions | To obtain feedback. |
| Quality Management Team | Daily | Email, Slack for Business | To ensure that all key processes are implemented correctly. |