BIDPRO:An Online Bidding System For Software Development Projects

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ABSTRACT

Computer information and control systems are becoming more and more integral to our daily life. Often, we are not even fully aware of how completely we rely on technology in our day to day lives. Software has become an essential input for the operations of virtually all businesses, across all industries and sectors. As a result, the software industry has had disproportionate, positive effects on all business output, productivity, exports, and jobs.

Technology or computers are an integral part of any business. Every company or individual businesses needs a system that can easily transact and progress developers to clients and clients to developers. Managers and owners of small businesses are always on the lookout for methods to help to improve their business. Most of the business establishments need a system like accounting management, security management, sales management, technical management etc. One way to do this that is very popular with small business owners is to implement project management software with online partnership. These are web based applications which enable anyone within the business to sign in and work remotely from anywhere in the world. This is just one of the reasons why a small business management software solution is perfect for a small business.

INTRODUCTION

Every business needs a small business management software application. It will save you and your employees a great deal of time each working day. With only one application in use there is no need to be constantly switching between applications to complete on task. Integrated calendars will help business owners and managers to see what staff is doing with ease. Quoting and invoicing is made much more straightforward by creating both through one application. This means that sales leads can be followed up with ease by simply checking which quotes have been created and not followed up. When a quote is then accepted it can simply be changed into an invoice which means even more time is saved.

Document storage, which can sometimes be an issue for small businesses, can be streamlined with small business management software. As soon as a document has been created, it can be saved directly onto the application, it can then be accessed by any employee with the correct level of access. No more waiting for documents to be emailed from employee to employee, by saving them all on one application they can be retrieved quickly and easily. In addition to this small business management software can help a business wave goodbye to missing documents, something that everyone will welcome.

Small businesses with up to fifty employees can use small business management software, which means that you don't have to be a tiny company to benefit from it. Any business that has off site employees that need to fill in timesheets can use small business management software to track employees working hours. Offsite employees can log into the application, fill in their timesheet and managers or owners can use this information to work out wages. When this is compared with the time it can take to chase up time sheets from various employees it is clear to see why this type of software is so useful.

Software developers are responsible for many of the technologies that we take for granted every day. All of these things are possible due to the development of software. It is clear that there are numerous reasons why small businesses need small business management software. It can cut down the time spent on tasks drastically; it is easy to access and has business wide functionality. In Bidpro, we value the importance of empowering new developers to set up their own profile. BidPro consider as a right marketplace for software development and platform solutions for businesses.

OBJECTIVES OF THE STUDY

The objective of this study is to design and develop a web and mobile based application of an online bidding system for software development projects.

Specific Objectives

- SDP Seeker Module

  1. Software Projects
     1.1. Create Project
     1.2. Update Project
     1.3. View Project

  2. Project Milestone
     2.1. View Project progress of the system
  3. Notification Management
  4. Receive notifications
  5. Search Filter Management

  6. Payment Management
     6.1. Transaction (papal)
     6.2. View history of payments
  7. Create,Update and Delete Account

- SDP Bidder Module

  1. Bid Project posted by SDPseeker
  2. Create a proposal for the project
  3. View Project progress of the system
  4. Update the progress of the System
  5. Create,Update and Delete Account

- AdminModule

  1. Review users
  2. Deactivate Accounts
  3. View Projects
  4. Manage reports

SCOPE AND LIMITATIONS OF THE STUDY

The proposed system has the following limitations:

The following are the scope of BIDPRO:

1. The system only focuses on Software Projects (e.g web and ,mobile)for bidding ;

2. The system provides monitoring management that will monitor progress of the system project develop by bidder ;

3. The system provides feedback management for bidders;

4. It lets the system seeker receive number of bids from SDP Bidders bidders;

5. The system provides management that will let the developer create a unique value propositon bidding template ;

6. The system is open for all freelance developer but it is mainly for the benefit of the small businesses.

The following are the limitations of BIDPRO:

1. The system will use the city of Cebu as a test site;

2. The system will not accept rate per hour projects.;

3. No cancellation once the project is accepted by the developers.;

4. The system will not determine if the user is a freelance or company group;

5. It does not include videocall;

6. Our system doesn't support Auto-bidding – bidders can set a maximum bid and leave the system to bid on their behalf.

7. Mobile support application is designed for android application only.

8. No charges fee or dues for posting public feedback and composite or compiled feedback.

9. No cancellation once the project is accepted by the developers

TECHNOLOGY STACK

Technology stack is a combination of software products and programming languages used to create a web or mobile application. Applications have two software components: client-side and server-side, also known as front-end and back-end. The terms front end and back end refer to the initial and the stage of the process flow. The front is an abstraction simplifying by the underlying component by providing a friendly user interface. It is responsible for accumulating input from the users in various forms and processing it to conform to a specification the back-end can use. The front end is the interface between the user and the back end. A back-end application or program serves indirectly in support of the front-end services, usually by being closer to the required resource or having the capability to communicate with the required resource. The back-end application may interact directly with the front-end or, perhaps more typically is a program called from an intermediate program that mediates front-end and back-end activities.
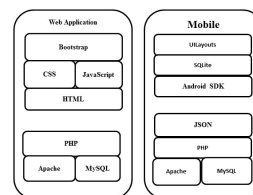

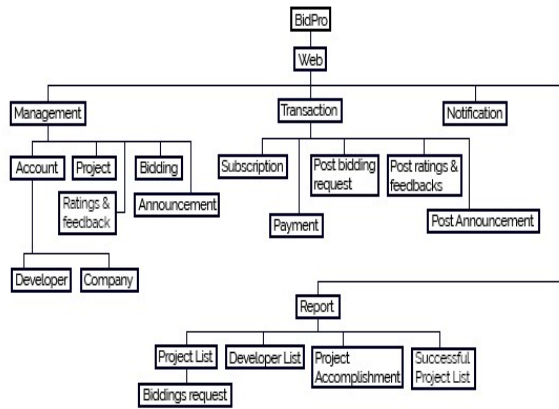Figure 1: **Technology Stack for BIDPRO**
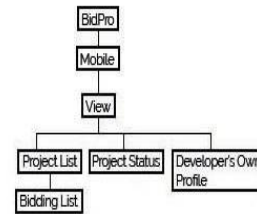
Figure 2: **Functional Decomposition Diagram Web**

Figure 3: **Functional Decomposition Diagram Mobile**

FUNCTIONAL DECOMPOSITION DIAGRAM

FDD is used by the system analysts to decompose the intended function into a number of sub-functions that each solves a part of the problem. The sub-functions themselves may be further decomposed into yet more primitive functions.

The FDD will serve as a guide to the programmer to know the function needed in the implementation of the system to achieve the objectives of the study.

USE CASE DIAGRAM A use case diagram is a graphic depiction of the interactions among the elements of a system.
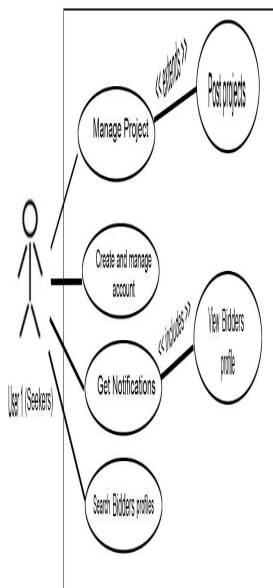

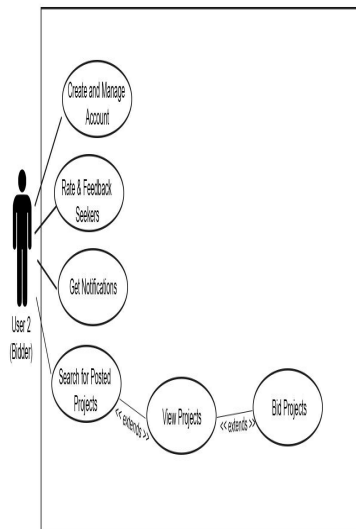Figure 4: **Use Case Diagram SDP Seeker**

Figure 5: **Use Case Diagram SDP Developer**
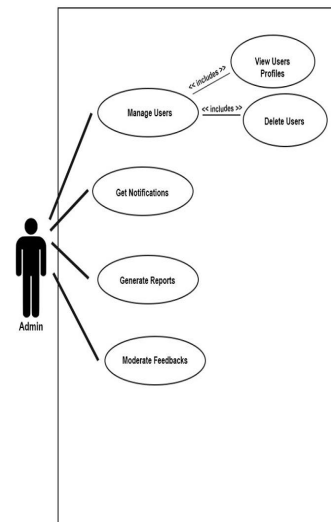
Figure 6: **Use Case Diagram Admin**

4

DATABASE DESIGN

Database design is the process of producing a detailed data model of database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database.

Entity Relationship Diagram

An entity relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is a component of data. It illustrates the logical structure of databases. Below shows the ER diagram of our system.

Figure 7: Entity Relationship Diagram

LIST OF MODULES

Table 1: <u>**List of Module for Web**</u>

ACCOUNT MANAGEMENT

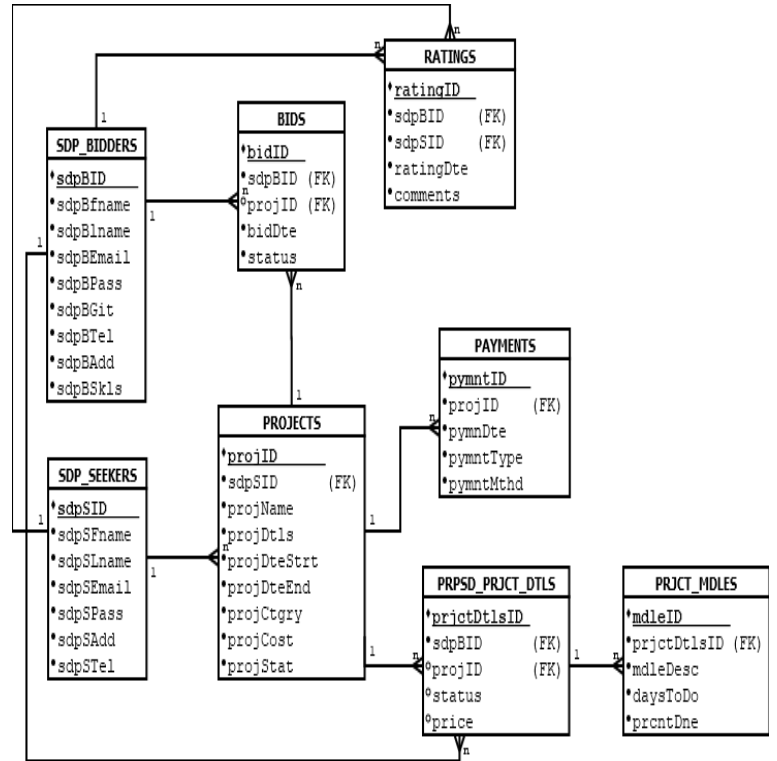| Prog	Modules	SDP Seeker	SDP Bidder	Admin
	1. Create Account	*	*	
	2. Update Accounts	*	*	
	3. Delete Account	*	*	*
	4. View Account	*	*	*
	5. Set Avatar	*	*	*
	No. of points	1	1	1

PROJECT MANAGEMENT

Prog	Modules	SDP Seeker	SDP Bidder	Admin
	1. Create Project	*		
	2. View Project	*	*	*
	3. Bid Project		*	
	4. Update Project	*	*	
	5. Delete Project	*		*
	6.Bid Project		*	
	7.View Bid	*		
	8. Create Proposal		*	
	No. of points	1	1	1

FEEDBACK MANAGEMENT

Prog	Modules	SDP Seeker	SDP Bidder	Admin
	1. Rate Developer	*		
	2. Create Review	*	*	
	3. Delete Review	*	*	
	4. View Review	*	*	*
	5. Update Review	*	*	
	No. of points	1	1	1

PAYMENT MANAGEMENT

Prog	Modules	SDP Seeker	SDP Bidder	Admin
	1. Create Payment	*		
	2. Cancel Payment	*		
	No. of points	1		

NOTIFICATION MANAGEMENT

Prog	Modules	SDP Seeker	SDP Bidder	Admin
	1. Push Notification	*	*	
	No. of points	1	1	

Total number of modules 5

Total number of points 12

Table 2: **List of Module for Mobile**

ACCOUNT MANAGEMENT

Prog	Modules	SDP Seeker	SDP Bidder	Admin
	1. Create Account			
	2. Update Accounts			
	3. Delete Account			
	4. View Account	*	*	*
	5. Set Avatar			
	No. of points	1	1	1

PROJECT MANAGEMENT

Prog	Modules	SDP Seeker	SDP Bidder	Admin
	1. Create Project			
	2. View Project	*	*	
	3. Bid Project			
	4. Update Project			
	5. Delete Project			
	No. of points	1	1	

Total number of modules 2

Total number of points 5

CONCLUSION

Here it will be explained what we have realized with respect to the requirements, the problems found during the development of the system, what we have learned from the realization of the project and the possible improvements to the online bidding system.

Administration Side Stories

Requirments	Implemented
1. Homepage	YES
2. Personal Page	YES
3. Reports	YES

User Side Stories

Requirments	Implemented
1. Homepage	YES
2. Registration	YES
3. Login	YES
4. Browse	YES
5. Personal Page	YES
6. Search	YES
7.Bid	YES
8.Notification	YES
9.Transaction	YES

RECOMMENDATION

Like most applications, BIDPRO never attained perfection due to limited time and resources. The researchers and developers struggle to create an application that can confer with user needs and satisfaction. has the basic functionalities needed for it to work and it is recommended for Beta testing.

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