SHRI GOVINDRAM SEKSARIA INSTITUTE OF TECHNOLOGY AND SCIENCE

TITLE: BOOK MY SERVICE

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Submitted to:

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DECLARATION

We, Harshit Panwar and Brajesh Gore, the students of Department of Information Technology declare that the dissertation “Book My Service” is our own work conducted under the supervision of Mr. Upendra Singh (Assistant Professor), Information Technology Department, S.G.S.I.T.S. Indore (M.P.).
We further declare that to the best of our knowledge this dissertation work does not contain any part of any work which has been submitted for the award of any degree or any other work either in this University or in any other University/ websites without proper citation.

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Harshit Panwar
Brajesh Gore

ABSTRACT

This project is a web based online service system. The project objective is to deliver the online service application into android platform. This project is an attempt to provide the advantages of online booking service to customers. It helps book the service in the city from anywhere through internet by using an android device. Thus the customer will get the online home service. Book My Service is a platform to make our urban lives more fulfilling to solve our needs in a Snap. The platform helps customers hire trusted professionals for services such as salon at home, cleaning, plumbing, carpentry, interior design, wedding photography, yoga training and more.

TABLE OF CONTENTS

1. INTRODUCTION

In this section an overview of the project is given. Need of the project and problem statement are stated and the solution approach has been explained. At the end, organisation of the report has been given.

1.1 Preamble

The objective of the project is to make a online platform to book online services. In order to build such a website complete web support need to be provided. A complete and efficient web application which can provide the online service experience is the basic objective of the project.

1.2 Need of the Project

A Book My Service is allow the customer to book services virtually using the Internet. Finding a home services is become a daily concern these days, and that is where the need for this project came up from. With the evolution of technology, we have smartphones, and a central management system(basically an admin) that posts this service status to a web application to guide
the costumer in finding a vacant slot.

1.3 Problem Statement

As discussed earlier, seeking a crowded space during peak hours in areas like Saloon, Spa, Parking, and Furniture Shop etc has always been frustrating for every other person. Now that is a serious issue to look after, and Online Booking Services is one of the best available solutions to at least reduce the crowded place caused due to the above problems.

1.4 Project Objectives

Objective of project is to save time of the person and eventually reducing the congestion in the city and efficiently using the available Services to the best of our capabilities**.**

1.5 Solution Approach

The idea is to develop a web service that can receive information about the availability status of the services from Admin (here the database) and post that information to the web application. Also passing information to database through web service URL and updating the changes in the system. We did some research on how to connect to database, also seen some best practices in writing JavaScript.

1.6 Organisation of the Report

This section provides a brief summary about the organization of report. The rest of this report is organised as follows.
Chapter 2 contains fundamental details and background study of the project. Chapter 3 is devoted to literature review. Chapter 4 covers complete analysis of project. Chapter 5 elaborates the design of the project. Chapter 6 presents Implementation. Chapter 7 elaborates testing of the project and chapter 8 concludes the report.

2. BACKGROUND

In order to understand our choice of frameworks() we have to describe Book My Service system's particular application requirements. This project's primary component is a web service that receives the availability status from the client (admin) and further allocates it to the incoming order. The Java based web service is built to connect to the backend system which is MySQL database. And the web application has front end designed using HTML5, CSS and JavaScript and is developed in NetBeans IDE over a Apache Tomcat server.

2.1 JavaScript

The front end of the application is developed using JavaScript and certain library of
JavaScript. It is the programming language of HTML and the Web. Online Services System application uses:
1. HTML to define the content of web page
2. CSS to specify the layout of web page
3. JavaScript to program the behavior of the web page

2.2 Java Server Pages (JSP)

Java Server Pages (JSP) is a server-side programming technology that enables the creation of dynamic, platform-independent method for building Web-based applications. JSP have access to the entire family of Java APIs, including the JDBC API to access enterprise databases. This tutorial will teach you how to use Java Server Pages to develop your web applications in simple and easy steps.
Java Server Pages often serve the same purpose as programs implemented using the Common Gateway Interface (CGI). But JSP offers several advantages in comparison with the CGI:
1. Performance is significantly better because JSP allows embedding Dynamic Elements in HTML Pages itself instead of having separate CGI files.
2. JavaServer Pages are built on top of the Java Servlets API, so like Servlets, JSP also has access to all the powerful Enterprise Java APIs, including JDBC, JNDI, EJB, JAXP, etc.
3. JSP pages can be used in combination with servlets that handle the business logic, the model supported by Java servlet template engines.

2.3 NetBeans

NetBeans is an integrated development environment (IDE) for Java. NetBeans allows applications to be developed from a set of modular software components called modules.
NetBeans runs on Windows, macOS, Linux and Solaris. In addition to Java development, it has extensions for other languages like PHP, C, C++, HTML5, and JavaScript.
Applications based on NetBeans, including the NetBeans IDE, can be extended by third party developers NetBeans IDE: NetBeans IDE is an open-source integrated development environment.
NetBeans IDE supports development of all Java application types (Java SE (including JavaFX), Java ME, web, EJB and mobile applications) out of the box. Among other features are an Ant-based project system, Maven support, refactorings, and version control (supporting CVS, Subversion, Git, Mercurial and Clearcase). All the functions of the IDE are provided by modules. Each module provides a well-defined function, such as support for the Java language, editing, or support for the CVS versioning system, and SVN. NetBeans contains all the modules needed for Java developments in a single download, allowing the user to start working immediately.Modules also allow NetBeans to be extended.

2.3.1 Apache Tomcat

Apache Tomcat is an open-source implementation of the Java Servlet, JavaServer Pages, Java Expression Language and WebSocket technologies. Tomcat provides a “pure Java” HTTP web server environment in which Java code can run.
Tomcat 7.x implements the Servlet 3.0 and JSP 2.2 specifications. It requires Java version 1.6, although previous versions have run on Java 1.1 through 1.5. Versions 5 through 6 saw improvements in garbage collection, JSP parsing, performance and scalability. Native wrappers, known as “Tomcat Native”, are available for Microsoft Windows and Unix for platform integration.
Tomcat 8.x implements the Servlet 3.1 and JSP 2.3 Specifications. Apache Tomcat 8.5.x is intended to replace 8.0.x and includes new features pulled forward from Tomcat 9.0.x. The minimum Java version and implemented specification versions remain unchanged.

3. LITERATURE REVIEW

A casual employee does not have a firm commitment in advance from an employer about how long they will be employed for, or the days (or hours) they will work. A casual employee also does not commit to all work an employer might offer.
For example, an employee who works to a roster that could change each week and can refuse or swap shifts is casual.

A casual employee:

- has no guaranteed hours of work
- usually works irregular hours
- doesn't get paid sick or annual leave
- can end employment without notice, unless notice is required by a registered agreement, award or employment contract.

3.1 How is casual different to full-time or part-time?

Full-time and part-time employees have ongoing employment (or a fixed-term contract) and can expect to work regular hours each week. They are entitled to paid sick leave and annual leave.
Full-time and part-time employees must give or receive notice to end the employment.

3.2 What do casual employees get?

Casual employees are entitled to:

- a higher pay rate than equivalent full-time or part-time employees. This is called a 'casual loading' and is paid because they don't get benefits such as sick or annual leave
- 2 days unpaid carer's leave and 2 days unpaid compassionate leave per occasion
- 5 days unpaid family and domestic violence leave (in a 12-month period)
- unpaid community service leave.

3.3 Long term casual employees

Some casual employees work for one employer for a long period and become 'long term casuals'. Long term casuals stay as casual employees unless their employment relationship changes with their employer so that there is a mutual commitment to provide ongoing work on an agreed pattern of ordinary hours of work. A long term casual gets their casual entitlements regardless of how regularly they work or how long they work for.

After at least 12 months of being engaged regularly by an employer on a casual basis, and if it’s likely that the employment relationship will continue, a casual employee can:

- request flexible working arrangements
- take parental leave.

They don't get paid leave or notice of termination, even if they work regularly for a long time.

3.4 Changing to full-time or part-time employment

A casual employee can change to full-time or part-time employment at any time if the employer and employee both agree to it.
Most awards have a minimum process for changing casual employees to full-time or part-time. Some enterprise agreements and other registered agreements have a similar process.

4. ANALYSIS

System analysis is the process of gathering and interpreting facts, diagnosing problems and using the information to recommend improvements on the system. System analysis is a problem solving activity that requires intensive communication between the system users and system developers.
System analysis or study is an important phase of any system development process. The system is viewed as a whole, the inputs are identified and the system is subjected to close study to identify the problem areas. The solutions are given as a proposal. The proposal is reviewed on user request and suitable changes are made. This loop ends as soon as the user is satisfied with the proposal.

4.1 Detailed problem statement

As discussed earlier, seeking a crowded space during peak hours in areas like Saloon, Spa, Parking, and Furniture Shop etc has always been frustrating for every other person. Now that is a serious issue to look after, and Online Booking Services is one of the best available solutions to at least reduce the crowded place caused due to the above problems.

4.2 Usecases Description

In its simplest form, a use case can be described as a specific way of using the system from a user's (actor's) perspective. A more detailed description might characterize a usecase as:
1. A pattern of behavior the system exhibits.
2. A sequence of related transactions performed by an actor and the system.
3. Delivering something of value to the actor.

Use Cases provide a means to:
• Capture system requirements.
• Communicate with the end users and domain experts.
• Test the system.
The User of the system is a customer who would be searching for online services, and the use cases are the sequence of actions that provide something of measurable value to the user like checking the availability. And finally after finding a service, he can apply for the service.

The below figure depicts the Use Case Diagram for the Vehicle Drivers:

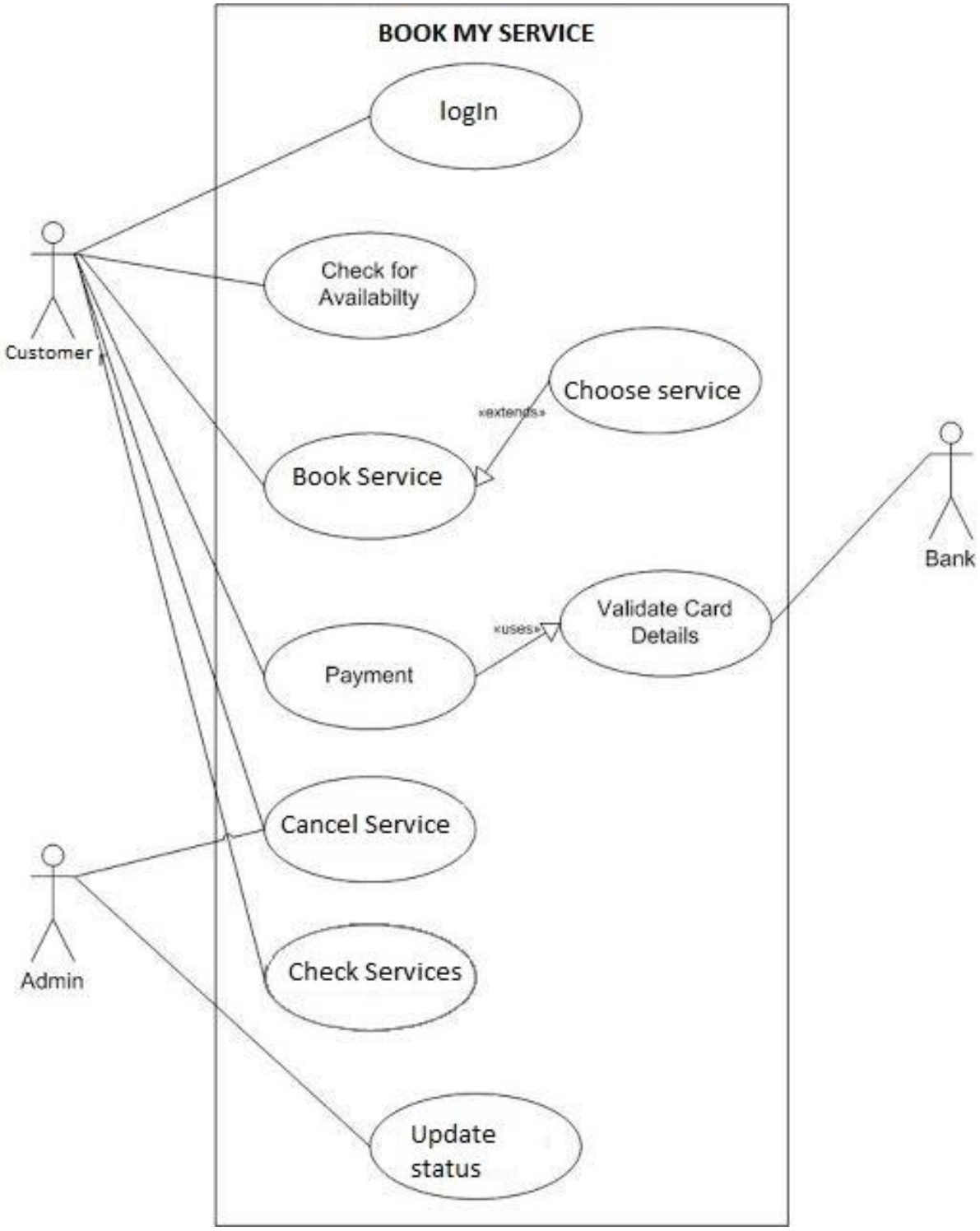


Figure 4.1 Usecase Diagram

4.1 Purpose of Activity Diagram

The basic purposes of activity diagrams is similar to other four diagrams. It captures the dynamic behaviour of the system. Other four diagrams are used to show the message flow from one object to another but activity diagram is used to show message flow from one activity to another.
Activity is a particular operation of the system. Activity diagrams are not only used for visualising the dynamic nature of a system, but they are also used to construct the executable system by using forward and reverse engineering techniques. The only missing thing in the activity diagram is the message part.
It does not show any message flow from one activity to another. Activity diagram is sometimes considered as the flowchart. Although the diagrams look like a flowchart, they are not. It shows different flows such as parallel, branched, concurrent, and single.
The purpose of an activity diagram can be described as −

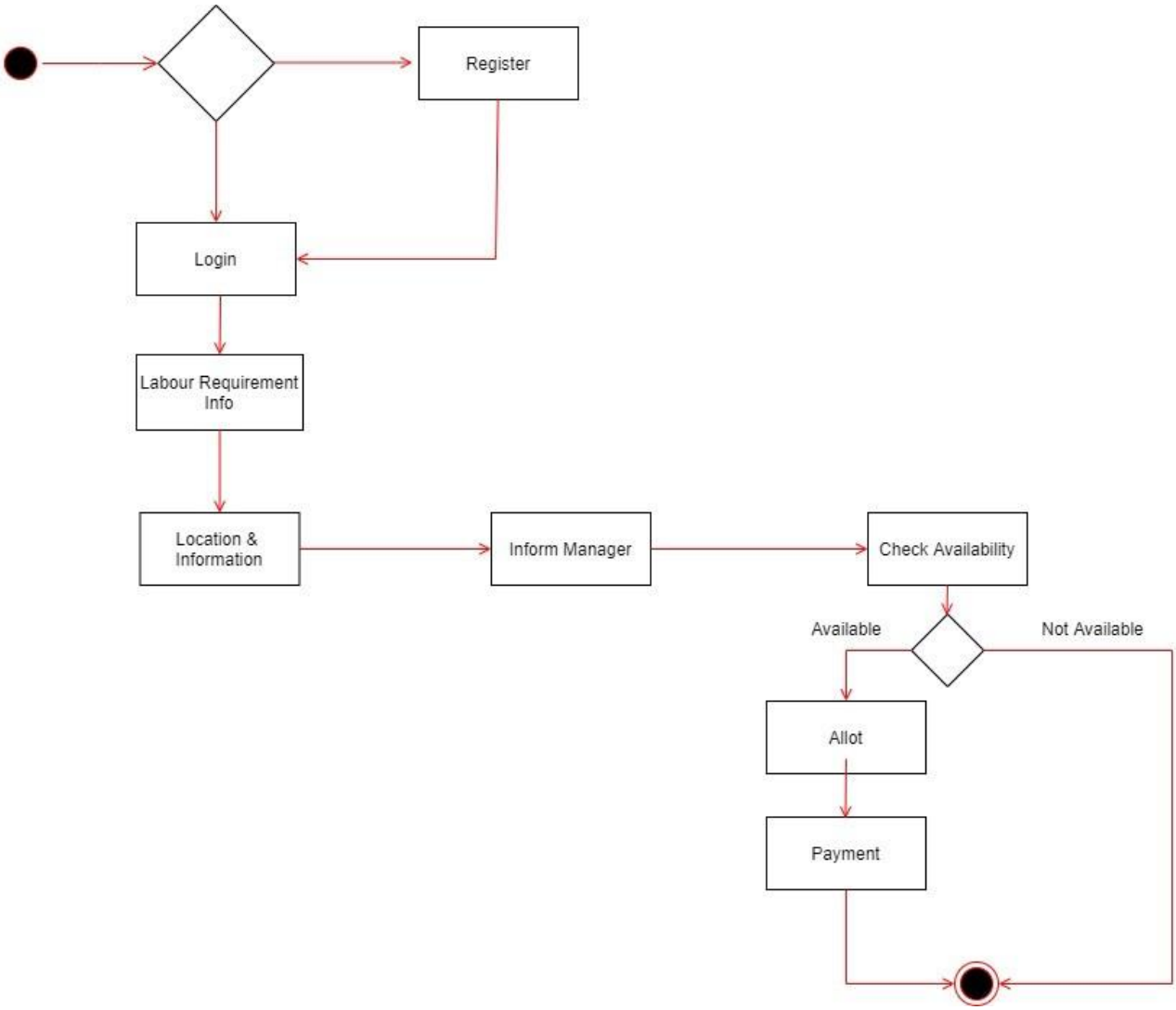
- Draw the activity flow of a system.
- Describe the sequence from one activity to another.
- Describe the parallel, branched and concurrent flow of the system.

4.2 Activity Diagram Description

Activity diagram description

Register- First most process of registration
Login- For both new and existing customer.
Labour requirement info- Customer's requirement of labour type
Location details- Address of the working area.
Inform manager- Informing manager about the customer order and requirement
Check availability—Manager checking labourers availability.
Allots Labourer- If available labourers are then allotted to customer.
Payment- Payment to labourers via oline or cash on delivery.
Process stops after the payment step.

4.3 Activity Diagram



4.4 Requirement Analysis

Requirements Analysis is the process of defining the expectations of the users for an application that is to be built or modified. Requirements analysis involves all the tasks that are conducted to identify the needs of different stakeholders. Therefore requirements analysis means to analyze, document, validate and manage software or system requirements. High-quality requirements are documented, actionable, measurable, testable, traceable, helps to identify business opportunities, and are defined to a facilitate system design.

Functional Requirement

In software engineering, a functional requirement defines a system or its component. It describes the functions a software must perform. A function is nothing but inputs, its behaviour, and outputs. It can be a calculation, data

manipulation, business process, user interaction, or any other specific functionality which defines what function a system is likely to perform.
Functional software requirements help you to capture the intended behaviour of the system. This behaviour may be expressed as functions, services or tasks or which system is required to perform.

Non-Functional Requirements
A non-functional requirement defines the quality attribute of a software system. They represent a set of standards used to judge the specific operation of a system. Example, how fast does the website load?
A non-functional requirement is essential to ensure the usability and effectiveness of the entire software system. Failing to meet non-functional requirements can result in systems that fail to satisfy user needs. Some Non-functional Requirements are;

- Portability
- Security
- Maintainability
- Reliability
- Scalability
- Performance
- Reusability
- Flexibility

System Requirements
System requirements are the configuration that a system must have in order for a hardware or software application to run smoothly and efficiently. Failure to meet these requirements can result in installation problems or performance problems. The former may prevent a device or application from getting installed, whereas the latter may cause a product to malfunction or perform below expectation or even to hang or crash.
System requirements are also known as minimum system requirements.

- Software Requirements

Software requirement manages requirements of software resource and prerequisites that need to be installed on a computer to provide optimal functioning of an application. Following are the softwares required for the implementation of this project.

(i) OS: Windows 7 with SP1; Recommended: Windows 10
(ii) CPU: Intel or AMD processor with 64-bit support; Recommended: 2.8 GHz or faster processor
(iii) GPU: nVidia GeForce GTX 1050 or equivalent; Recommended: nVidia GeForce GTX 1660 or Quadro T1000
(iv) Disk Storage: 4 GB of free disk space
(v) Monitor Resolution: 1280x800; Recommended: 1920x1080
(vi) Internet: Internet connection required for software activation

- Hardware Requirements

The hardware requirements are the requirements of a hardware device. Most hardware only has operating system requirements or compatibility. For example, a printer may be compatible with Windows XP but not compatible with newer versions of Windows like Windows 10, Linux, or the Apple macOS.

Following are minimum hardware requirements of this project:

(i) RAM: 512 MB or above
(ii) Disk Space: 20 GB or above
(iii) Processor: intel core i3 or above

5. DESIGN

5.1 Purpose of Class Diagram

The purpose of class diagram is to model the static view of an application. Class diagrams are the only diagrams which can be directly mapped with object-oriented languages and thus widely used at the time of construction.
UML diagrams like activity diagram, sequence diagram can only give the sequence flow of the application, however class diagram is a bit different. It is the most popular UML diagram in the coder community.
The purpose of the class diagram can be summarized as −

- Analysis and design of the static view of an application.
- Describe responsibilities of a system.
- Base for component and deployment diagrams.
- Forward and reverse engineering.

5.2 Class Diagram Description

1. Manager class –Manager class includes attributes such as Name, Customer info, Labourer info, Location info which are of string type and phone number of integer type. Methods in this class include checking labourer availability and allocating labourers.All attributes and methods are of private type accessibility.

2. Customer class- Attributes of string type –Name,Address Attributes of integer type- Customer ID and phone number. Methods in this class include registering , logging in ,renting laourers,and paying. Accessibility type is private for all attributes and methods.

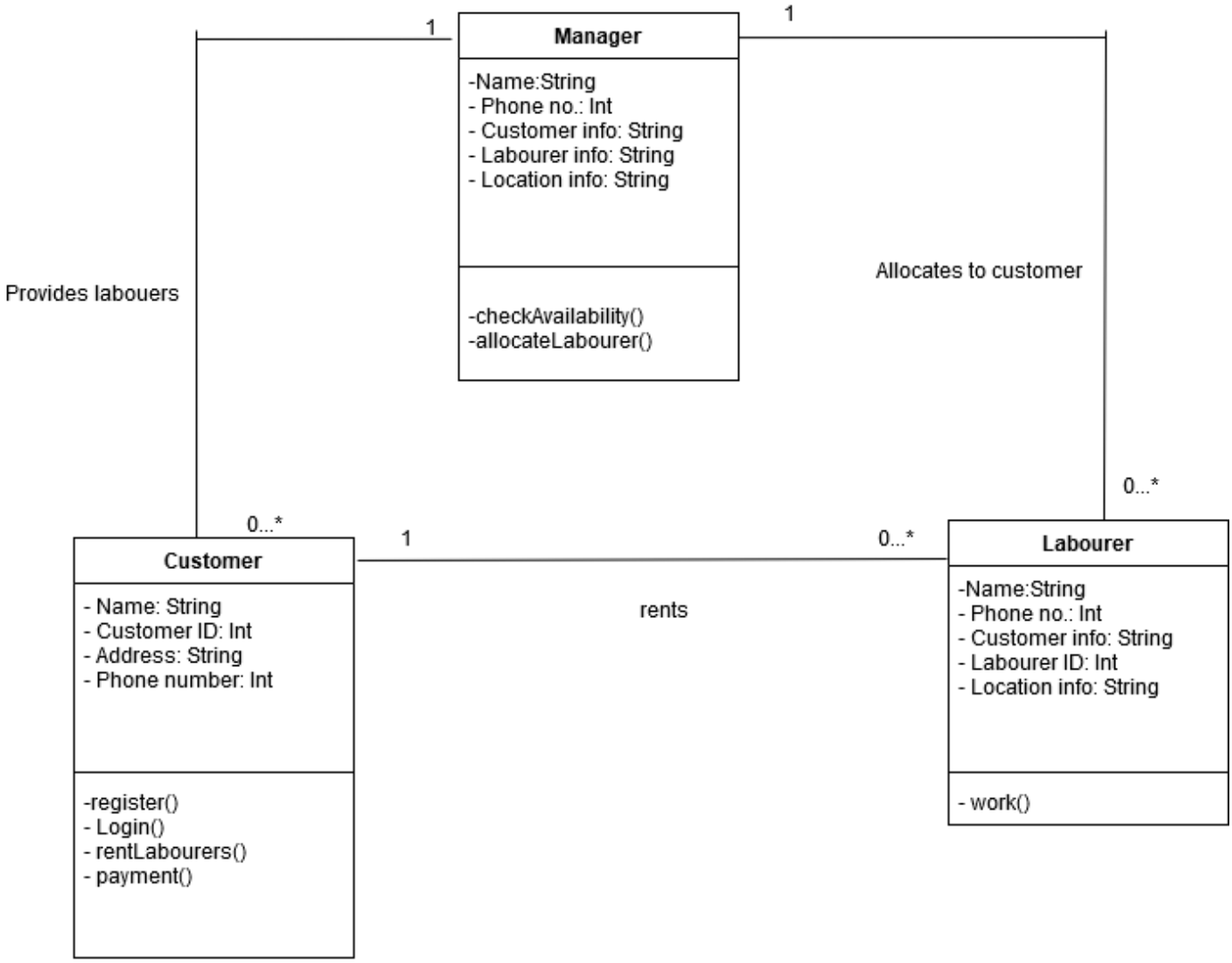
3. Labourer Class:- String type attribute-Name , Customer info,Location Info Integer type attribute- Phone number , labourer id. There is only one method in this class and that is working. Accessibility of all attributes and methods are of type private.

Relationships and multiplicity:-Manager and customer have general association relationship with multiplicity type one to many.

Manager and Labourers have general association relationship with multiplicity type one to many.

Customer and Labourers also have general association relationship with multiplicity type one to many.

5.3 Class Diagram



5.4 Purpose of Sequence Diagram

The purpose of interaction diagrams is to visualize the interactive behavior of the system. Visualizing the interaction is a difficult task. Hence, the solution is to use different types of models to capture the different aspects of the interaction. Sequence and collaboration diagrams are used to capture the dynamic nature but from a different angle.
The purpose of interaction diagram is −

- To capture the dynamic behaviour of a system.
- To describe the message flow in the system.
- To describe the structural organization of the objects.
- To describe the interaction among objects.

5.5 Sequence Diagram Description

It shows the timeline of events happening throughout the whole process. Chronological explaination of steps is as follow-

1. An actor registers or logs in depending on new or existing customer.

2. Demanding of labourers by customer

3. Sending customer request to manager.

4. Manager checking the availability of labourers at that instance of time.

5. Manager uploading availability status on website.

6. Website diplaying availability.

7. Customer then providing details about type of work and area location of the concerned place on website.

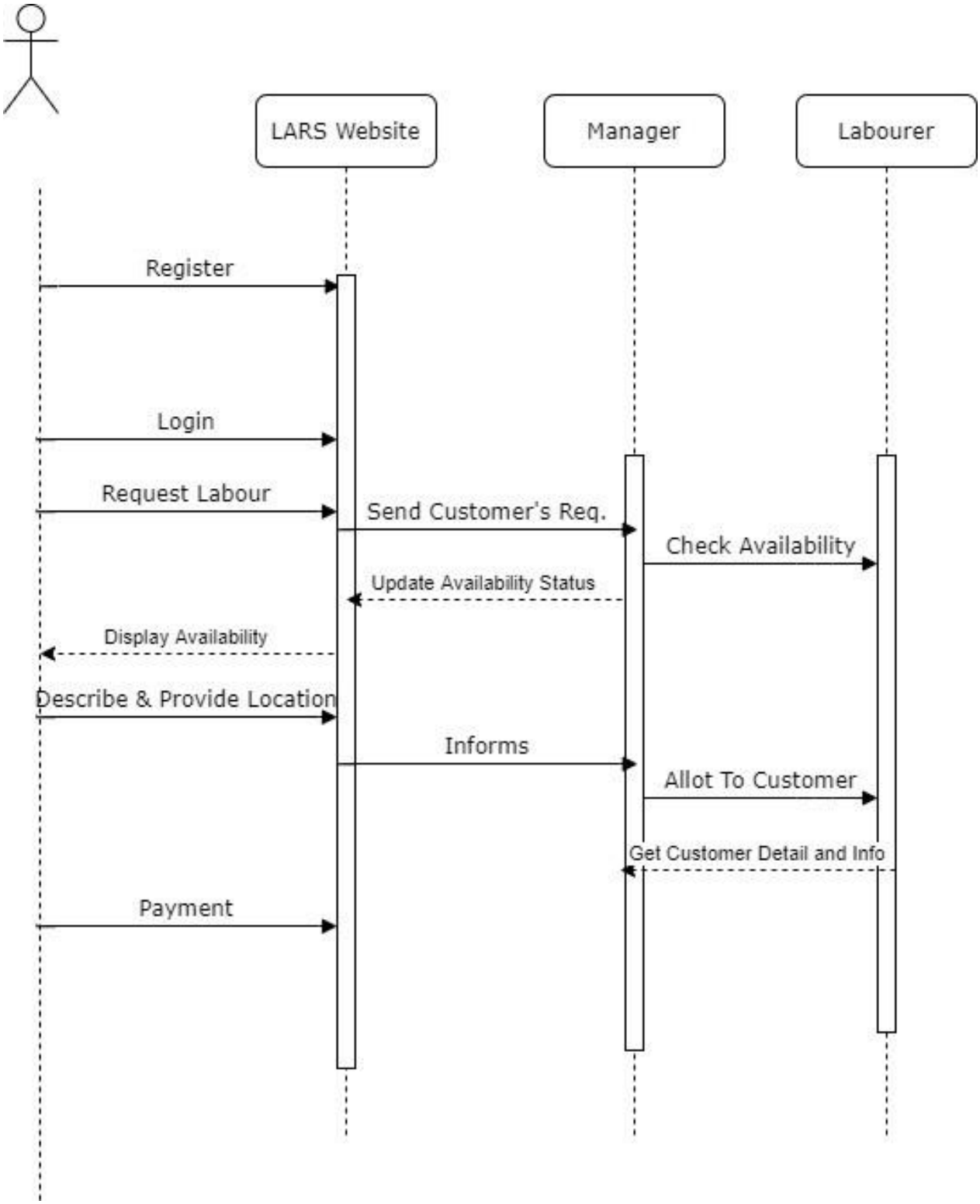
8. Website informs manager about customer's info

9. Allocation of labourers to customer.

10. Labourers collecting customer info ad proceeding for work

11. Last step includes payment by customer.

5.6 Sequence Diagram



6. IMPLEMENTATION

The project is based upon the allocation and registration of labourers, who find it difficult to find jobs on a daily basis. The implementation process of the project is based on several sub-processes. These processes are discussed below:

6.1 Registration of User/Labour

This is the first step in the process. A person can either register as a User(Employer) or a Labourer who is in need of employment. The Registration process asks for information such as Name, Contact Number, Specialisation, gender etc. This goes in the database and is maintained for the Login process to take place flawlessly. Certain validation of registration form is don in this step such as the length of the password needs to be between 5-10 characters, you name cannot be a numeric and can neither be empty. These rules need to be kept in mind while registering, otherwise the website prompts the instructions. After a user or a labourer is registered successfully, his/her account is created and then he/she can proceed for login.

6.2 Login

Login is nothing but having an username and a password to go to your account. The login saves the efforts of registering every time a person wants to go and check the account. While registering for the account, a user or a labourer puts in his/her desired used ID and password. There are the input fields to the login process.

6.3 Posting Requirements

As the name suggests this step includes posting the requirements of the work. The following are taken under consideration while doing so.

• Duration
The Duration talks about how the work is. For example, painting a house takes around 5-7 days but mowing a lawn can take 3-4 hour. Therefore, this requirement asks for the total time an user will be needing a labourer or the duration for which a labourer is willing to work.

• Skill
Skill is the domain of work in which a person has specialised. This requirement is being posted by an user will talk about the skill of the work. This will help in better allotment of labourers to the Employers

• Number of people
The number of people asks about the requirement of workforce that is needed for a particular job.

• Budget
The budget covers the financial aspect of the work. It will ask the user the amount of money he/she is willing to pay fo ra particular work. Based on the budget post by the user, the labourers who are willing to work in that amount of money are connected with the employers.

• No Particulars
A user an select this option if he/she has no bounds regarding budget, skill or duration in mind. Checking this option will allow the system to automatically allocate the labourers to the employers

• Special Preferences
Any user who has some special requests regarding any domain can put in those here. For example, if an a person is looking for workforce needed to help him move his house, and he needs only men, then he can post his demand in this section.

6.4 Allotment

The allotment process deals with allocation of labourers to the user or the employees. The following domains are taken into consideration while the allocation is done.

• Number of Labourers
The number of Labourers talks about how many labourers have been allocated to a particular work. This allotment is done on the basis of the requirement so posted by the employers/user. For example, painting a house can require around three-four labourers but mowing a lawn requires one.

• Skill
The skill domain talks about the specialisation of the labourer and what work he/she needs to do at the workspace; this allotment is in congruence with the requirement of skill posted by the user.

• Total Amount
The total amount refers to the total money paid as wages to the labourers.

• Pay Scale
The pay scale refers to the maximum and the minimum amount of money an employer is willing to pay to the labourer for the work he/she need to get done.

6.5 Feedback

After all the works done, the system asks both, the labourers and the employers for feedback regarding the quality of work, humbleness etc. Bases on this, the system does the ratings of the labourers. This acts as a reference for other employers/users who want to get some work done by the labourers.

7. TESTING

7.1 Basics of Testing

Software Testing is defined as an activity to check whether the actual results match the expected results and to ensure that the software system is Defect free. It involves execution of a software component or system component to evaluate one or more properties of interest.Software testing also helps to identify errors, gaps or missing requirements in contrary to the actual requirements. It can be either done manually or using automated tools. Some prefer saying Software testing as a White Box and Black Box Testing.

Software techniques can be majorly classified into two categories:

1. Black Box Testing: The technique of testing in which the tester doesn't have access to the source code of the software and is conducted at the software interface without concerning with the internal logical structure of the software is known as black box testing.

2. White-Box Testing: The technique of testing in which the tester is aware of the internal workings of the product, have access to it's source code and is conducted by making sure that all internal operations are performed according to the specifications is known as white box testing.

Software testing can be divided into two steps:
1. Verification: it refers to the set of tasks that ensure that software correctly implements a specific function.
2. Validation: it refers to a different set of tasks that ensure that the software that has been built is traceable to customer requirements.

Verification: "Are we building the product right?"
Validation: "Are we building the right product?"

7.2 Types of Testing

Software Testing has several types, some of which are discussed below:

1. Unit Testing

It focuses on smallest unit of software design. In this we test an individual unit or group of inter related units.It is often done by programmer by using sample input and observing its corresponding outputs.

2. Integration Testing

The objective is to take unit tested components and build a program structure that has been dictated by design.Integration testing is testing in which a group of components are combined to produce output.

Integration testing is of four types: (i) Top down (ii) Bottom up (iii) Sandwich (iv) Big-Bang

3. Regression Testing

Every time new module is added leads to changes in program. This type of testing make sure that whole component works properly even after adding components to the complete program.

4. Smoke Testing

This test is done to make sure that software under testing is ready or stable for further testing

It is called smoke test as testing initial pass is done to check if it did not catch the fire or smoked in the initial switch on.

5. Alpha Testing

This is a type of validation testing.It is a type of acceptance testing which is done before the product is released to customers. It is typically done by QA people.

6. Beta Testing

The beta test is conducted at one or more customer sites by the end-user of the software. This version is released for the limited number of users for testing in real time environment

7. System Testing

In this software is tested such that it works fine for different operating system.It is covered under the black box testing technique. In this we just focus on required input and output without focusing on internal working.

In this we have security testing, recovery testing , stress testing and performance testing

8. Stress Testing

In this we gives unfavourable conditions to the system and check how they perform in those condition.

9. Performance Testing

It is designed to test the run-time performance of software within the context of an integrated system.It is used to test speed and effectiveness of program.

7.3 Application Overview

Testing is a process of executing a program with the aim of finding error. To make our software perform well it should be error free. If testing is done successfully it will remove all the errors from the software.

7.4 Testing Scope

7.3.1 In Scope

1. I/O operaton
2. Header file correction

3. Main function correction
4. Braces of main() function
5. Braces of if condition
6. Syntax of if else
7. Syntax within for loop
8. All the curly braces
9. Undeclared Variable

7.3.2 Out of Scope

Performance Testing was not done for this application.

7.3.3 Items not Tested

1. Function calling
2. Undeclared variables in i/o function.

8. DEPLOYMENT

8.1 Domain Purchasing Process

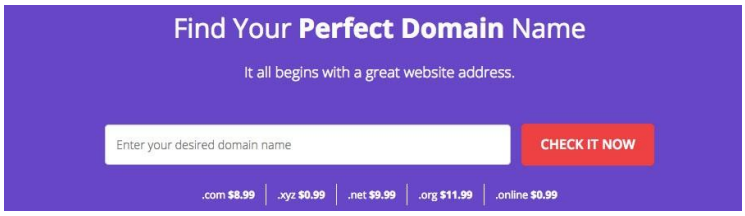
Every website needs a catchy address. And to get one, you need to know how to buy a domain name. Luckily, domain registration has become quite a simple procedure nowadays. It's also one of the first steps you need to take when you start a blog or create a website.
The short steps to buy a domain name are:

1. Choose a reliable domain registrar (like Hostinger or GoDaddy).
2. Find a domain availability checker tool.
3. Run a domain name search.
4. Pick the best available option.
5. Finalise your order and complete the domain registration.
6. Verify the ownership of your new domain.

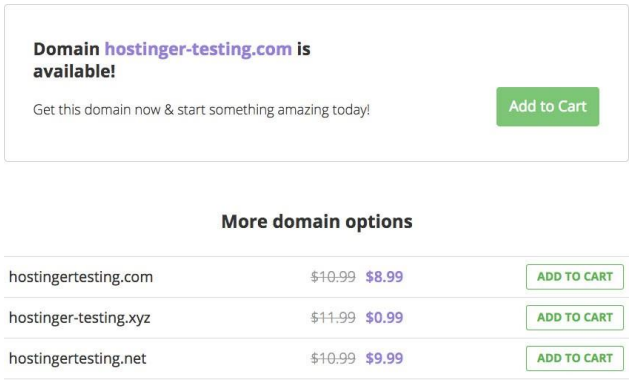
Below, we'll overview each step in a more in-depth fashion and present a few tips and tricks to ease the whole process.

How to Buy a Domain Name (From Hostinger)
Now that you know how to pick a proper domain name, you might be wondering how to purchase one.
To get a domain name for your website, you'll need an ICANN accredited registrar (such as us). Depending on your chosen domain extension, the registration fee can range between $0.99 to $92.99.
Below are 5 steps that cover the domain registration process in more depth.

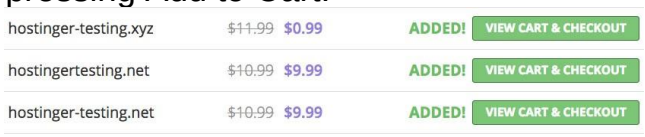
Step 1 – Find a Domain Checker
The journey of buying a domain name starts with an availability lookup. In fact, we have the perfect tool to check domain vacancy here on Hostinger.



Step 2 – Run a Domain Name Search
Now enter your desired name in the search field and take it for a spin. The domain checker tool will present you with a list of available options that you can register.

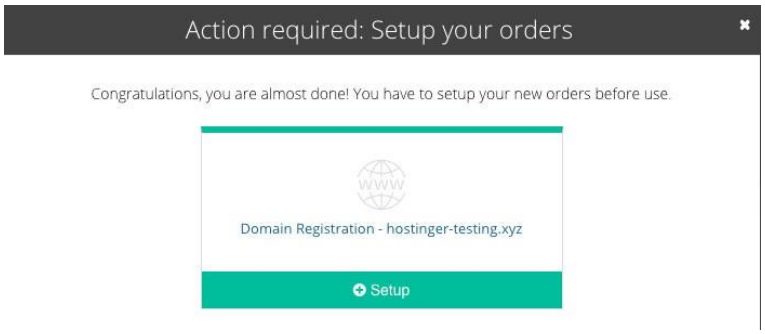


Step 3 – Pick Your Domain
Once you locate a name that you like, proceed with the registration by pressing Add to Cart.

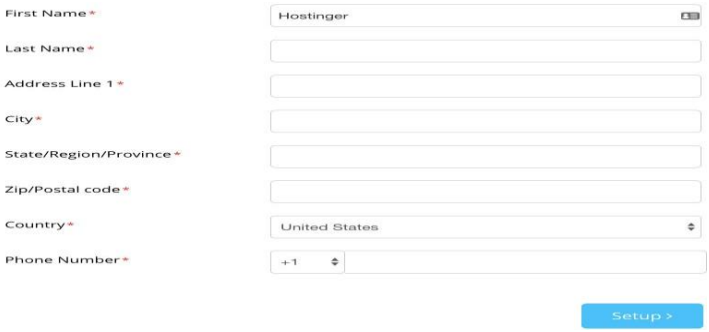


If you're not planning to look for more variations, proceed with the checkout and you'll be able to choose a payment processor and complete your transaction.

Step 4 – Complete the Domain Registration
As soon as you complete the domain payment, you'll be redirected to the control panel. Inside, you'll find the setup box to complete your domain name registration.

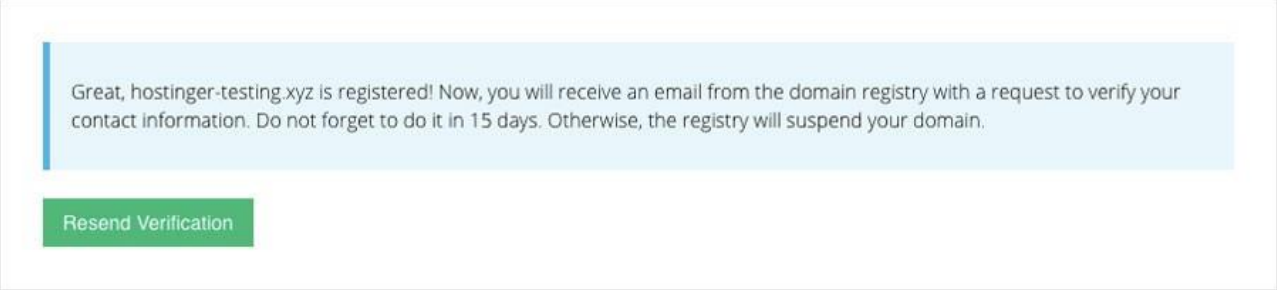


Make sure to fill in all the fields with the correct details, as they will be stored in the official domain ownership database called WHOIS.



After you submit your details, the domain registration will be processed and you'll only need to follow one last step.

Step 5 – Verify the Ownership of Your New Domain
The final step of your journey is to verify the domain ownership through the email address you used while registering. It usually arrives within a few minutes after finishing the domain setup.
In case it's not arriving, you can re-send the request from your control panel. We recommend doing it immediately, as waiting for 15 days or more will lead to a temporary suspension from the registry.



8.2 Server Purchasing Process.

Server resources tie closely to three specific types of hardware: hard disk storage; CPU size—number of cores, and to a lesser extent, clock speed; and the capacity of on-board server memory (RAM). A file server will have multiple bays for hard drives since it's primarily used for storage. A database server that handles lots of user queries benefits from a large (12- or 16-core) CPU. Web servers and application servers have framework-specific requirements you might reference, usually the number of users querying or writing to the database affects how robust you should go with the hardware.

<u>How to pick the right server for the job</u>
So, getting back to that initial question—*what will your server actually do*? A business buys a server to handle one or more specific tasks:

- Sharing assets with file server, or network attached storage (NAS) appliance across a local network or as so-called private cloud storage. Look for: multiple hot-swappable drive bays, configurable hardware/software RAID options; a low-power CPU should suffice.
- Providing authentication for a domain. Username, password, levels of access, and security settings resides in a designated server computer or network switch. Called a domain controller (DC) in Windows Server, and used for managing Active Directory (AD). Look for: a virtualization-capable server (any 64-bit CPU, 4 GB+ RAM)
- Providing database services to other servers. Applications and websites are built upon a database layer which is often stored on its own server. Development and non-user specific tasks like data analysis, mining, archiving, and storage using Oracle, MySQL, MS Access, and similar applications utilizes this server hardware. Look for: hard drives rated for fast writes; deploy an identical backup 'slave' server as a read-only database.

- Hosting a website with a web server. Web servers use HTTP to serve files that make up web pages served to users browsing a website. Web servers work in tandem with a database server. This may occur within the same physical hardware server, or by using two servers networked together. Look for: hardware redundancy especially if you host e-commerce. Increasing server RAM capacity benefits performance under load.
- Providing e-mail services with a mail server. Messaging servers, like Microsoft Exchange, use specific protocols (SMTP, POP3, IMAP) to send and receive messages. Dedicating server hardware to this task is recommend for optimal operation. Look for: similar specifications as a file server.
- Controlling shared peripheral equipment, like a printer. Low-power specs will suffice. You might repurpose and old PC as a print server if you have one.
- Running shared softwareon an application server. Centralizing applications their native framework (Java, PHP, .NET, various flavors of .js) improves performance under heavy usage, makes updates easier, and reduces TCO for maintaining tools organizations use for productivity. Look for: enterprise-grade storage bays (SAS hard drives) and ECC RAM. Note that un-virtualized instances tend to work better for development.

Choosing server form factor to fit your physical space

Servers come in several different physical form factors that can be classified into three umbrellas: tower, blade, and rackmount. The form factors are determined by the server case; you'll find the same components on the inside of comparable models.

- Tower – A tower server resembles a regular desktop computers—except that they have server components inside. Same as their PC cousins, towers come in several different shapes. These make sense as first servers because they can offer plenty of processing power and don't require you to purchase additional mounting hardware. The drawback of tower servers is that they take up more room than either rackmount or blade setups once you start adding more.
- Rackmount –Rackmount servers need to be installed onto a rack chassis. A chassis, typically several feet high, can hold multiple servers on top of each other in slots. Consider rackmount units when you have several servers and want to consolidate them into a smaller space.
- Blade – Similar to rackmount servers in that they require a chassis to be installed. Blade servers are even more space-efficient than rackmount servers. However, properly cooling blade servers can be more challenging; consider these when your server closet scales into a server room. They are an even bigger investment than rackmount servers.

8.3 Hosting your website on the server

You can buy your domain and web-hosting from multiple providers, including HostGator India. But did you know that HostGator India's award-winning hosting services are ideal for pros and beginners with little or no technical skills? They offer you a super easy way to set up (with just one click) and manage your website cost-effectively with:

- Round the clock support
- Unlimited2 storage
- Unlimited (professional) email addresses
- (with Unlimited Autoresponders, Mail Forwards, Email Aliases, Mailing Lists, etc.)
- 1-click installation
- (WordPress, Joomla, Magento, Drupal, phpBB, Gallery and many other CMSs)
- Latest cPanel

Steps to Host a Website:

Step 1: Decide What Type of Website You Want

You will typically find 2 types of websites:

- Static or Basic Websites: Static websites are simple websites with one or more web pages (called HTML pages). You can build them on your computer with software like Dreamweaver and then upload the pages to your host's server using any FTP software (such as FileZilla).Whenever you need to make changes to your website, you'll have to edit the pages on your computer and upload them again. Since they cannot be modified dynamically, such websites are called static websites.Static websites are cheaper than dynamic websites (below) but come with limited functionality and no option for e-commerce or interactivity.
- Dynamic Websites: Dynamic websites contain information that changes, depending on the time of day, the viewer and other factors. They make use of both client-side and server-side scripts to create and update content. Client-side scripts, which run on a user's computer, are mainly used for appearance and interaction purposes. Server-side scripts, which reside on a server and are extensively used by E-commerce and social networking sites, allow users to have individual accounts and provide a customised response for each user. Dynamic websites are CMS-driven, and allow you to directly add and edit content (i.e. text, design, photos, and videos), as well as let your visitors leave comments and start discussions.Dynamic websites are ideal for businesses and organisations. Examples of dynamic websites include blogs, forums, photo galleries and e-commerce sites.

Installing a web application software like WordPress, Joomla, Magento, etc. may sound complicated but it's not. HostGator India allows you one-click installation of web applications and provides friendly 24/7/365 support to make it easy.

Step 2: Choose Your Hosting Server

Unlike static HTML sites which can be hosted on most web servers, when it comes to web applications, there are basically two types of hosting platforms. Depending on your hosting needs and what you're most comfortable with, you can choose from:

- Linux Hosting, which allows running scripts written in PHP, Perl, Python and other Unix-originated languages, and usually supports PostgreSQL and MySQL databases. This is the most commonly used system today.
- Windows Hosting, which allows running ASP scripts utilizing .NET and other Microsoft technologies, and supports Microsoft SQL Server and Access database.

You can go with either Linux hosting or Windows hosting, regardless of which operating system you use at home or at work. If your website doesn't require any scripting support, you'll find Linux hosting more cost-effective. But if your website needs scripting and database support, choose the platform that supports the technologies you use.

Step 3: Select Your Web Hosting Plan

You will typically find a wide range of services in web hosting, such as:

- Shared Hosting: In shared hosting, you get to share the physical server with other website owners. However, you will have your own separate account (secured with login credentials). Shared hosting is very affordable because the cost of operating the server is shared between you and the other website owners.
- VPS Hosting (Virtual Private Server Hosting): In VPS hosting, every website is stored on a very powerful server that is divided into several virtual compartments. The server software is configured separately so that each unit can function independently. It should be your preferred option if you have high-security concerns but don't want to invest in a faster (but costlier) dedicated server.
- Dedicated Hosting: Dedicated hosting offers you an entire server for yourself, thereby making it faster, more secure…and costlier. It is the ideal solution for larger businesses and high-traffic websites because it allows for maximum customisation, configuration, installation and flexibility.
- Cloud Hosting: Cloud hosting allows multiple virtual servers (clouds) to work together to host a website or a group of websites. It offers unlimited ability to handle sudden traffic spikes. A cloud-hosted website is not limited to a single server, and the resources allocated to it can shrink or expand dynamically, depending on how much traffic you get. It's a great option for large websites, including e-commerce websites, newsletters and blogs.

Most people start with VPS (or even shared) hosting and upgrade later as their business grows. VPS hosting gives you professional web hosting capabilities at a far lower price than a dedicated server.

Step 4: Change Your DNS Address

After you have purchased your web hosting, you will get Name Servers (also known as Domain Name Servers or DNS) – which is the Internet's equivalent of a phone book that contains IP Addresses3.

To get your website up and working, you will need to change the Name Servers of your domain. It's a simple but mandatory step for you to get started.

1. Go to your Domain Control Panel via http://manage.hostgator.in/customer.
2. Enter your registered email address and password.
3. Click on the Domain Name for which you need to change the Name Servers.
4. In the Domain Registration section, click on the Name Servers option.
5. Replace the existing Name Servers with the ones provided by your current web host, and click on the Update Name Servers button.

If you have registered your domain name with a third party provider, you will need to log in to their Control Panel, update the Name Servers of the domain to those provided by HostGator. However, if your domain is already using the Name Servers of the third party provider, you can add an A Record for the domain pointing to HostGator's Server IP in the third Party DNS Zone.
After you have changed your DNS, it will take about 24-48 hours for your website to start resolving to HostGator India's servers.

Step 5: Upload Your Website

You can now upload your website to your account by connecting to the server using either cPanel's File Manager or FTP Client (such as FileZilla) – after which your website will go live.
How to Upload Your Website Using cPanel File Manager

1. Log in to your cPanel.
2. Click on the icon titled File Manager.
3. Select Web Root and click on Go.
4. Add all the files and folders under public_html and their respective domain folder.

How to Upload Your Website Using FTP Client

You can connect to FTP via an FTP program such as FileZilla Client. It allows you to see the files and folders on our server like you'd see them on your computer. You can use it to drag and drop your website's files into the /public_html/ folder.
To connect to your web server via FileZilla, follow these steps:

1. Install FileZilla and open it
2. From the File menu, select Site Manager
3. Click on New Site
4. Name the New Site – such as with your real domain name
5. Enter your website's IP address in the field marked FTP Address
6. Enter the username and password you received in your welcome mail
7. Set the Port to 21 (FTP always runs on Port 21)
8. Click Connect

Once your FTP is connected, you will see the files and folders of your:

- Local computer on the left
- Web hosting service on the right

To upload files to your hosting service provider via FileZilla, follow these steps:

1. From the left-hand side of FileZilla, select the file(s) and folder(s) you want to upload.

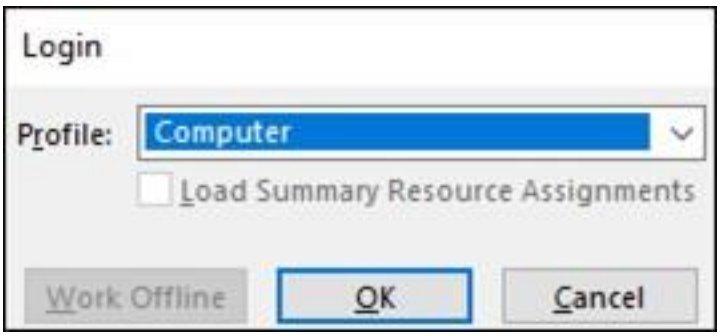
2. Drag and drop the file(s) and folder(s) to the directory location on the right side of your web hosting service. FileZilla will now start uploading.
3. After the uploading is finished, FileZilla log will confirm success and your uploads will be visible on the right-hand side

8.4 Accessing process of online project through URL

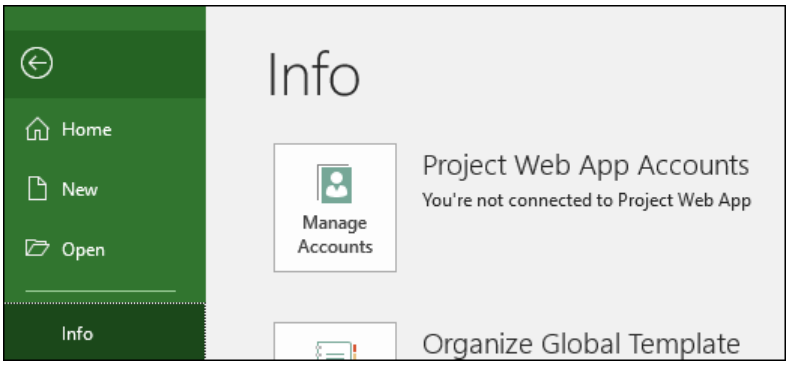
The Project Online Desktop client is included with your Project Online Professional or Project Online Premium license. While you can use it as a standalone client to create and manage your project plans offline, you can also use it to connect to Project Online in your Office 365 environment to work with your Project Online users. For example, you can create, save, and publish your projects to Project Online, and team members assigned to your project tasks can use Project Online to give you updates on their task status.

How to connect to Project Online

1. After opening the Project Online Desktop Client, at the login screen, for Profile select Computer, and then select OK.



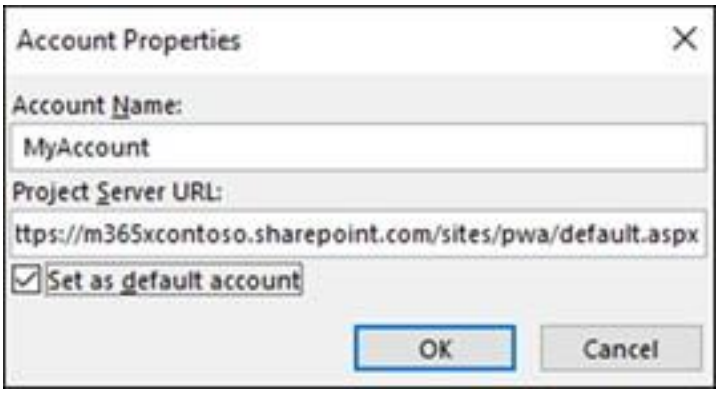
2. On the next screen, select Blank project.
3. On the new project page, select the File menu.
4. On the Backstage menu, select Info, and then select Manage Accounts.



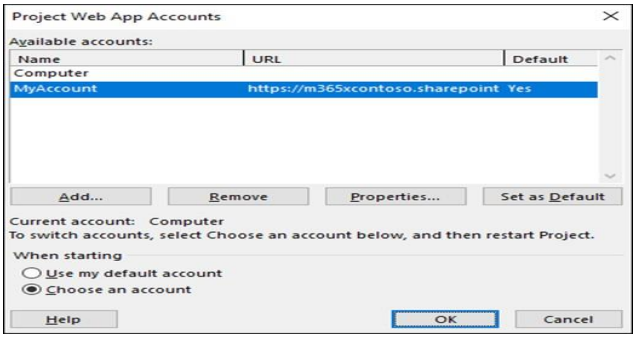
5. On the Project Web Apps Accounts page, select Add.
6. On the Account Properties page:

• For Account Name, type a name for this profile.

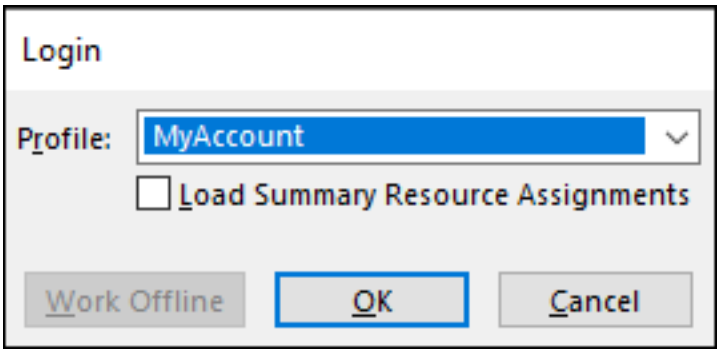
- For Project Server URL type the URL for your Project Web App home page in Project Online. Check with your Office 365 admin if you do not know what it is.
- Select Set as default account if you want to use this as your default profile each time you open Project Online Desktop Client.
- Click OK.



7. Your new account will now show On the Project Web App Accounts page. Click OK.



8. Close and then reopen the Project Online Desktop Client. At the login window, select your account and click OK to connect to Project Online.



9. CONCLUSION

Daily rate is only a system of payment of wages whereas casual employee is an employee employed or engaged on a job which is purely casual in nature or which does not exist regularly. Normally since a casual worker for a day or two, his wages will be based on his attendance or work. It does not mean that regular employees should not be daily rated. If there is a regular work for which we have employed a regular worker but his wages is purely based on his attendance, then he is called a daily rated regular employee. His wages can be paid monthly. By making payment monthly, it does not mean that he is monthly rated. Monthly rated employee will get wages for 30/31 days, including the weekly off days whereas daily rated worker will get for the days he worked.

These daily wage labourers are worried about starving to death on days when they cannot earn enough money. These labourers cannot earn enough money as they are unable to find jobs that meet their specialisations. Be it manual labour or Skilled labour, none can be paid enough if o proper platform is provided.

After connecting the labourers and the employers, we found that the labourers were getting Pais enough money so as to fill their stomachs even on days they didn't get a job. The LARS platform not only helped the casual workers in monetary terms but also boosted their sense of workmanship.

In all, this platform helped several daily wagers to stand on their feet in this competitive world.

10. REFERENCES

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- https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-new_delhi/documents/publication/wcms_638305.pdf
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- https://www.jstor.org/stable/2597916?seq=1
- https://tradingeconomics.com/india/wages
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- https://economictimes.indiatimes.com/small-biz/legal/the-code-on-wages-2019-understanding-the-key-changes-to-wages-remuneration-and-bonus/articleshow/72913106.cms?from=mdr
- https://www.fairwork.gov.au/employee-entitlements/types-of-employees/casual-part-time-and-full-time/casual-employees
- https://www.dhyeyaias.com/sites/default/files/Download-Dhyeya-IAS-Perfect-7-Weekly-Magazine-in-English-September-2018-Issue-1_www.dhyeyaias.com_.pdf
- https://reqtest.com/requirements-blog/requirements-analysis/
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