**PROJECT REPORT**

ON

LOCAL ONLINE SHOPPING PORTAL

Towards partial fulfillment of the requirement For the award of degree of

**Bachelor of Computer Application**

Submitted by under Guidance of

Uma upadhyay ID : 713010

Mrs. Shweta Sinha

Academic Session 2013 – 16 Department of Computer Science



**National P.G. College**

**(An Autonomous College of Lucknow University)**

**(NAAC ‘A’ Grade Credited)**

**2- Rana Pratap Marg,Lucknow**



**National P.G. College**

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**CERTIFICATE**

This is to certify that project report entitled **Local Online Shopping Portal** being submitted by

**Uma Upadhyay**

Towards partial fulfillment of the requirement For the award of degree of

**Bachelor of Computer Application(BCA)**

In the Academic Session: 2013-2016

Is a record of students own work

And to the best of my knowledge the work reported here in does not form a part of Any other thesis or work on the basis of which degree or award was conferred on An earlier occasion to this or any other candidate

**Mrs. Shalini Lamba H.O.D(Computer Application)**

**CANDIDATE DECLARATION**

I, hereby certify that the work which is being presented in the project work entitled **“Local Online Shopping Portal”** is the fulfillment of the requirement for award of the Bachelors in Computer Applications submitted in the Computer Science Department of National P.G. College.

This is an authentic record of my work during 6 months period under supervision of

**Mrs. Shweta Sinha.**

The matter presented in the project work has not been submitted by me for the award of any other Degree/Diploma of this or any other University.

**Date :**

**Place : Lucknow (Signature of Candidate)**

**Acknowledgement**

The satisfaction and euphoria that accompany the development of any task would be incomplete without the mention of the people who make it possible, whose constant guidance and encouragement crowned our efforts with success.

We, the developers feel indebted to a lot of people who during the course of our project not only held us in good stead but also provided us with invaluable services both personal and professional.

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Actually, this project report is just an excuse to convey our feelings about how much we appreciate the amount of concern and caring that our teachers exhibit in all our pursuits ranging from anything as simple as the routine lab program to something as taxing as a project. Their patient listening to our problem is itself a major source of strength to us.

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* **Introduction and Objectives**
* **Statement of The Proposed System**

The Apnaroom platform revolutionizes the property rental market by offering an advanced online solution tailored for seamless property

management and acquisition. Users can effortlessly browse a curated selection of rental properties within their local area, ensuring they fnd

the perfect match for their needs. Apnaroom stands out with its emphasis on hyperlocal connectivity, delivering real-time property listings and updates to facilitate quick and informed decisions. The platform also provides detailed expense breakdowns, ensuring full transparency in rental costs, and fosters trust with comprehensive property and landlord profles. This modern approach addresses the growing demand for efficient and localized rental solutions, positioning Apnaroom as a cutting-edge player in the property rental sector.

* **Problem With Existing System**

Current online property rental platforms often fail to address key concerns for users, such as the lack of detailed expense breakdowns and difficulty fnding nearby properties that meet diverse needs. Many platforms do not provide a separate listing of individual rental expenses, leaving users uncertain about the total fnancial commitment involved .Additionally, users struggle to fnd properties that are conveniently located, with options ranging from affordable, economical choices to high-end luxury accommodations. This lack of transparency and localized search can make it challenging for users to make informed decisions and secure suitable rentals efficiently.

Apnaroom resolves these issues by offering a unique solution that includes comprehensive expense listings for complete fnancial clarity and a hyperlocal search feature. This allows users to easily fnd properties within their desired area, catering to both budget-friendly and luxury preferences, thus enhancing the overall rental experience with greater transparency and convenience.

* **Objective of the Project**

In the evolving digital landscape, Apnaroom seeks to redefne property rental

experiences by leveraging the latest in technology and local connectivity. Our

project aims to bridge the gap between online convenience and local

reliability, focusing on the following key objectives:

**Local Integration:** Rather than relying on centralized warehouses, Apnaroom

partners with local property owners and managers, ensuring that users benefit

from the efciency of online searches while enjoying personalized, nearby

support and rapid responses.

**Empowering Local Landlords**: The platform offers small and independent

property managers an opportunity to thrive in the competitive rental market,

aligning with the growing demand for localized, accessible property solutions.

**Comprehensive Information:** Apnaroom provides detailed, transparent

information about each property, including expense breakdowns,

amenities, and location specifcs, enabling users to make well-informed

decisions.

**Convenient Access:** Catering to busy individuals, the platform allows users

to search for and manage rental properties online, saving time and offering

flexibility.

**Flexible Payment Options:** Users can make payments through various

methods including cash, debit cards, or digital transactions, ensuring a

seamless and secure fnancial process.

**Enhanced Transparency and Security:** By offering clear details on costs

and property features, Apnaroom fosters trust and ensures a secure

rental experience with reliable delivery and support services.

Apnaroom aims to transform the property rental landscape by combining the

best aspects of online convenience with the personal touch and

reliability of local services, ultimately providing a superior and more efcient

rental experience.

* **Project description**

The project, titled "**Apnaroom: Your Local Property Rental Platform,"**

redefnes the rental experience by integrating local property management

with advanced online functionality. Apnaroom focuses on transforming

property searches and rentals through a platform that connects users with

trusted local property owners, offering an alternative to traditional, broader

market rental websites.

The core objective of **Apnaroom** is to create an intuitive, reliable online portal

for property seekers and managers. By emphasizing local connections, the

platform ensures that users fnd suitable rental options close to home, with the

added beneft of personalized service.

**Key features include:**

**User-Friendly Interface:** A seamless interface for users, landlords, and

administrators, with distinct access levels to maintain security and streamline

operations.

**Comprehensive Access Control:** Administrators have broad oversight

capabilities, while property managers and tenants operate within a secure,

defned scope, ensuring the integrity of all data.

**Focused Property Listings:** Specializing in local properties, Apnaroom

provides detailed listings that include transparent information on costs,

amenities, and location, enhancing user decision-making.

**ApnaRoom** is dedicated to delivering a superior rental experience by combining the convenience of online platforms with the trust and reliability of local services, ensuring a robust and user-centric property management

solution.

* **System Analysis**

**Landlord Dashboard:**

**Access and Authentication:** Landlords must register or log in to access their dashboard.

**Property Management:** Landlords can list new rental properties, update existing property details,

and manage their listings.

**Listing Overview:** Landlords can view and track the performance of their property listings,

including inquiries and reservations.

**Profle Management:** Landlords can update their profle information and manage account settings.

**Tenant Dashboard:**

**User Authentication:** Tenants must log in with verifed credentials to access their dashboard.

**Property Search and Inquiry:** Tenants can search for rental properties based on various criteria, view

detailed property information, and submit inquiries.

**Reservation and Booking:** Tenants can make reservations and manage their bookings through

the dashboard.

**Profle Management:** Tenants can update their personal information and manage their account

settings.

**Administrator Features:**

**Platform Management**: Administrators have the ability to add and manage localities, property

categories, and brands across the platform.

**Billing and Reports**: Administrators handle billing statement generation and oversee comprehensive

transaction reports.

**Full System Access:** Administrators have unrestricted access to all system features and can monitor

overall platform activity.

**User Interface Requirements:**

**Intuitive Navigation:** The interface should be user-friendly, allowing landlords and tenants to easily

navigate their respective dashboards.

**Clear Functionality:** Interface elements should be clearly labeled and provide immediate,

understandable feedback.

**Consistent Design:** The interface should maintain consistency in actions and prompts to ensure a

cohesive user experience across different dashboards.

**Aesthetic Appeal**: The design should feature an attractive layout and color scheme, enhancing both

usability and visual appeal.

**2.2 Risk Analysis:**

Uncertainty is a constant factor in both personal and professional environments,

shaping the choices we make daily. When we discuss risk, it typically refers to the

likelihood of encountering an adverse outcome. Naturally, we strive to either

avoid or mitigate these risks. For instance, if there's a forecast of rain and we

want to avoid getting drenched, we could stay indoors to avoid the risk altogether

or carry an umbrella to reduce its effects. Similarly, uncertainty can infuence

decisions both positively and negatively. In risk analysis, our focus tends to be on

potential setbacks—those scenarios that could result in loss or harm—though a

comprehensive analysis also sheds light on positive opportunities.

In the context of apnaroom, risk assessment involves evaluating the platform’s

infrastructure, security measures, and processes to gauge their resilience against

potential threats. The business impact analysis goes deeper, identifying key

functions like property listings, user account management, and payment

processing, while assessing the impact if any of these functions are interrupted for a

signifcant period. Criteria such as customer experience, operational efciency, legal

compliance, and fnancial stability are vital in evaluating these risks.

The core objective of business recovery planning is to safeguard apnaroom’s

functionality in case any part of its operations or services becomes unavailable.

Every department from IT to customer support needs to be analyzed for potential

risks posed by factors such as cyber threats, system failures, or natural disasters.

Despite efforts to prevent risks, both internal and external threats must be evaluated

comprehensively. Although the specifc nature of potential issues is difcult to predict,

conducting a thorough risk assessment of plausible threats is invaluable. The primary

goals remain to ensure user safety, protect data, and maintain service continuity.

Uncertainty can manifest in several ways for apnaroom: If we're unsure of a

competitor’s marketing strategy, the uncertainty stems from our limited access to

that information. It might be known to them, but it’s hidden from us.

If the uncertainty relates to market demand for rental properties, it arises from the

interplay of economic factors, user preferences, and actions taken by competitors.

Even with full knowledge of these variables, predicting demand can be a complex

challenge.

In terms of technology, uncertainty could come from our ability to scale the platform

effectively, infuenced by technical limitations or emerging technology trends.

Certain operational aspects, like fuctuating user behavior, may involve inherent

randomness that is beyond control or prediction.

Understanding and managing these risks will help apnaroom remain a reliable and

resilient platform for all users.

* **Preliminary Investigation**

The preliminary investigation marks the initial phase of the system development life cycle, providing a foundational understanding of the system in question. It offers a comprehensive overview of the existing processes and helps identify areas where improvements can be made.

At this stage, the necessity of developing a new system is critically assessed. For apnaroom, this involves gathering essential insights to outline the key components of the platform. This stage leads to the creation of a "Project Overview" document, which outlines the challenges with current property rental methods, the objectives of the apnaroom platform, its scope, constraints, and the potential advantages of implementing the proposed solution, all aligned with user needs.

The major steps in this stage are:

Identifcation of the key problems and formal initiation of the project.

Conducting background research to understand the current landscape of rental systems.

Drawing inferences and drafting a system proposal based on initial fndings.

Estimating the scope and scale of the project, including resources required.

Evaluating alternative solutions by comparing their costs and benefts.

Assessing the technical feasibility and viability of different approaches.

This stage sets the groundwork for the apnaroom project, helping to ensure that the platform is designed to address the right challenges with a feasible and scalable solution.

* **Project Feasiblity**

Project feasibility involves evaluating whether pursuing the project is both practical and valuable. The process used to reach this conclusion is

known as a feasibility study. This study assesses whether the proposed project can be successfully implemented and whether it will provide

meaningful benefts. Once apnaroom is deemed feasible, the next step is to develop detailed project specifcations, which outline the specifc requirements and features of the platform.

The feasibility study focuses on answering three critical questions:

1. What are the clear needs of the users, and how does the proposed apnaroom platform address them?

2. What resources, such as technology, time, and fnances, are available to support the development of the apnaroom platform? Is solving the

current problem a worthwhile endeavor?

3. How will the implementation of the apnaroom platform affect the overall operations and success of the rental ecosystem?

**Feasibility Consideration**

**Types of Feasibility Study:-**

* **Technical feasibility**
* **Operational feasibility**
* **Economic feasibility**
* **Schedule Feasibility**

**Steps Involve in Feasibility Study**

**Technical Feasibility:**

Technical feasibility assesses the hardware and software requirements necessary to develop the system and whether these resources will adequately meet user

needs. For apnaroom, this involves determining if the technical infrastructure can

support the platform’s functionality and performance expectations.

The technical needs of apnaroom may include:

The ability to generate search results, listings, and other outputs promptly.

Quick response times, even during peak usage periods.

Handling a large volume of rental transactions efciently and at a consistent speed.

The ability to securely transmit data between various users and locations.

For the apnaroom system, the following technology stack would be required:

Frontend: React.js or Angular for a dynamic and responsive user interface

Backend: Node.js or Python (Django/Flask) for handling server-side logic

Database: MySQL or MongoDB for data management and storage

Payment Integration: Stripe or PayPal for secure online transactions

Hosting: AWS or Microsoft Azure for cloud-based hosting and scaling

Security: SSL encryption, frewalls, and two-factor authentication for data protection

APIs: RESTful APIs for seamless communication between frontend and backend

Based on these criteria, specifc hardware and software products will be evaluated to

ensure they meet the logical needs of the platform.

The apnaroom system is technically feasible, as the organization has access to the

required software, hardware, and cloud services necessary to support its development

and deployment.

**Operational Feasibility:**

Operational feasibility assesses how well the proposed system will integrate into existing workfows and whether any modifcations or user retraining will be necessary for

successful implementation. For apnaroom, this involves evaluating how the platform will ft

with current rental processes and if any adjustments to user behavior or operations will be

required. The evaluation also considers the readiness and skills of the current users and

whether the proposed changes will be acceptable to them.

Operational feasibility examines how users will interact with the apnaroom platform and

whether these interactions will yield the expected results. A key focus is on ensuring that

the system is user-friendly and that any changes brought by the platform improve, rather

than disrupt, current operations.

Additionally, operational feasibility involves assessing how the system manages and

organizes the database, ensuring efcient handling of property listings, user data, and transactions.

For apnaroom, operational feasibility is high, as the platform is designed to be intuitive

and straightforward, requiring minimal or no training for users to navigate the system. The interactive nature of the platform ensures that users can easily adapt to its features,

ensuring smooth adoption without signifcant operational disruptions.

**Economic Feasibility:**

Economic feasibility, often referred to as cost-beneft analysis, is a critical tool for assessing the fnancial viability of a proposed system. It involves calculating the expected benefts and savings from implementing the system and comparing them with the associated costs. If the benefts signifcantly outweigh the costs, the project is considered economically feasible, and development can proceed. If not, adjustments or alternative approaches must be considered to make the system viable. This analysis is refned throughout each phase of the system

development life cycle, improving in accuracy as the project progresses.

For apnaroom, economic feasibility revolves around determining whether the investment in platform development, including technology, personnel, and infrastructure, aligns with the expected returns such as increased user engagement, streamlined rental processes, and improved revenue generation. The apnaroom project is deemed economically feasible as the estimated development and operational costs remain within the planned budget, while the potential long-term benefts, such as increased property listings and user satisfaction, justify the investment.

**Schedule Feasibility:**

Schedule feasibility focuses on ensuring that the system development follows a structured timeline, leading to a fully functional and well integrated platform without delays or processing gaps. It evaluates whether the project can be completed within the proposed timeframe and if all development phases, from design to deployment, are properly aligned. This study checks the synchronization of tasks and ensures that the

project milestones are met in a timely manner.

For apnaroom, schedule feasibility involves setting realistic deadlines for key stages such as frontend and backend development, database

integration, testing, and deployment. By adhering to a clear timeline, the apnaroom platform will be completed on time, ensuring a smooth

launch without compromising on quality or functionality.

* **Methodology Used**

**Technologies Used:**

1. Frontend: React.js

React.js is a powerful JavaScript library used for building interactive user

interfaces. For apnaroom, it will allow seamless navigation and dynamic updates

without reloading the page, enhancing the user experience.

2. Backend: Node.js with Express

Node.js, combined with the Express framework, provides a lightweight and efcient

server-side environment. It enables fast and scalable back end operations for

handling user requests, managing data, and processing transactions on apnaroom.

3. Database: MySQL

MySQL is a reliable and widely-used relational database that will store and

manage structured data for apnaroom, such as user accounts, property listings,

bookings, and transactions. Its robust query capabilities ensure fast and secure

data handling.

4. Payment Integration: PayPal

PayPal is integrated to handle secure online payments for property bookings and

other transactions on apnaroom. It offers users a familiar and trusted method for

completing payments.

5. Cloud Hosting: Microsoft Azure

Microsoft Azure provides scalable cloud hosting for apnaroom, ensuring that the

platform can handle increased trafc while maintaining high availability and security   
 for users and data.

6. Version Control: GitHub

GitHub is used for version control and collaboration. It helps in managing code

changes and enabling efcient teamwork throughout the development of apnaroom.

7. API Integration: RESTful API

RESTful APIs are used to facilitate communication between the frontend and

backend, allowing efficient data transfer, such as retrieving property listings and

booking details.

8. Security: SSL Encryption

SSL encryption is implemented to ensure that all data exchanged between users and

the platform remains secure, protecting sensitive information such as login credentials

and payment details.

9. Real-Time Notifcations: Socket.io

Socket.io enables real-time updates on apnaroom, such as instant notifcations for

property availability, booking confrmations, and tenant landlord communications.

* **Software and Hardware Requirement**

**Requirement Specification**

**Tools/ Platform/ Software and Hardware Specification :**

**Software Requirement:**

1. Server:

Browser: Latest versions of Chrome, Mozilla Firefox, Microsoft Edge

Database: MySQL 8.0 or higher

Operating System: Windows 10, Ubuntu 20.04+, or CentOS 7+

2. Client:

Browser: Latest versions of Chrome, Firefox, Safari

Operating System: Windows 10 or higher, macOS, Linux

3. Developer Environment:

Browser: Latest versions of Google Chrome and Firefox

Database: MySQL 8.0 or higher, or PostgreSQL

Operating System: Windows 10, macOS, or Linux

(Ubuntu/Fedora)

Documentation Tools: MS Word, Google Docs, MS PowerPoint, Google Slides

Development Tools: Visual Studio Code, GitHub Desktop, Node.js, React Developer Tools

Hardware Specifcations:

1. Server:

Processor: Intel Xeon or AMD Ryzen 3.0 GHz or higher

RAM: 16 GB

Storage: 256 GB SSD (or higher) for faster data processing and storage

Display: 1920 x 1080 resolution, 32-bit color depth

2. Client:

Processor: Intel i5 2.5 GHz or equivalent

RAM: 4 GB or higher

Storage: 50 GB available space

Display: 1920 x 1080 resolution, 32-bit color depth

3. Developer System:

Processor: Intel i7 3.0 GHz or equivalent

RAM: 16 GB or higher for smooth multitasking and code compilation

Storage: 512 GB SSD for faster read/write speeds

Display: 1920 x 1080 resolution, 32-bit color depth

* **SYSTEM DESIGN**

**System Life Cycle**

To tackle challenges effectively in an industry setting, software engineers must implement a development strategy that incorporates process, methods, and tools. This strategy is often referred to as a process model or software engineering paradigm. The choice of model depends on the project’s nature, methods, tools, and necessary controls.

For the apnaroom project, the Agile Model is utilized. The Agile Model is well-suited for projects with evolving requirements and a need for iterative development. It emphasizes

fexibility,collaboration, and customer feedback throughout the development process.

Agile Methodology for Apnaroom Project

1. Concept and Initiation:

Goal: Defne the initial project vision and objectives, including core features like property listings, user profles, and booking management.

Activities: Gather initial requirements, create a high-level roadmap, and establish key stakeholders.

2. Iteration Planning:

Goal: Break down the project into smaller, manageable iterations or sprints, each delivering a set of features or improvements.

Activities: Prioritize features based on stakeholder input, create a backlog of tasks, and plan for regular iteration reviews.

3. Design and Development:

Goal: Develop features incrementally, with each iteration

producing a potentially shippable product increment.

Activities: Design and build features such as the user interface,

database schema, and payment integration in iterative cycles. Involve regular feedback sessions to refne and improve

features.

4. Testing and Feedback:

Goal: Continuously test the system throughout development to

identify and address issues early.

Activities: Perform functional and non-functional testing during

each iteration, gather user feedback, and adjust the backlog and

priorities based on the results.

5. Deployment and Review:

Goal: Deliver working increments of the system to users and

stakeholders regularly.

Activities: Deploy the system in phases, review performance,

gather feedback, and plan for additional iterations to enhance and

refne the system.

6. Maintenance and Support:

Goal: Ensure the system remains functional and meets evolving

user needs.

Activities: Provide ongoing support, address issues promptly, and

implement new features or improvements based on user feedback

and changing requirements.

Agile Design Approaches:

1. Iterative Design:

Design and develop features in iterations, allowing for ongoing refnement and adjustments based on feedback and changing requirements.

2. Collaborative Design:

Work closely with stakeholders and users throughout the project to ensure that the system meets their needs and expectations.

3. Flexible Design:

Embrace changes and updates to the design as the project progresses, allowing for rapid adaptation to new requirements or feedback.

By adopting the Agile Model, the apnaroom project can adapt to changing requirements, continuously improve based on user feedback, and

deliver a system that aligns closely with user needs and expectations. This approach ensures a dynamic and responsive development process

that enhances the overall quality and effectiveness of the fnal product.

* **Project Modules**

To effectively manage and develop the apnaroom.com platform, the project is divided into distinct modules. Each module handles specifc

functionalities, ensuring that the system is manageable and each component can be developed, tested, and maintained independently. Below

are the key modules of the apnaroom.com project:

1. Admin Module

The Admin Module is designed for the administrators who oversee the entire platform. It includes functionalities for managing and monitoring

the platform's operations. Key features include:

User Management: Manage user accounts, including tenants and landlords.

Property Listings: Oversee and approve property listings submitted by landlords.

Security Controls: Implement and manage authentication and authorization processes to ensure secure access.

Content Management: Edit or update website content, including property details and user information.

Reporting: Generate and view reports on user activity, property listings, and system performance.

2. Landlord Module

The Landlord Module is intended for landlords who list their properties on the platform. It includes:

Property Management: Add, update, or remove property listings, including details such as price, location, and availability.

Application Management: Review and manage rental applications from potential tenants.

Communication: Communicate with interested tenants through integrated messaging features.

3. Tenant Module

The Tenant Module serves users looking to rent properties. It features:

Search and Filter: Search for properties based on criteria such as location, price, and type.

Application Submission: Apply for rental properties and track the status of applications.

Profle Management: Manage personal information and rental history.

Booking: Book viewings and manage rental agreements.

4. Billing Module

The Billing Module manages the fnancial transactions on the platform. It includes:

Invoice Generation: Generate and send invoices for rental payments and other fees.

Payment Integration: Integrate with payment gateways like PayPal for secure transactions.

Transaction History: Maintain records of all fnancial transactions for both landlords and tenants.

5. Property Module

The Property Module maintains detailed information about properties listed on the platform. Key functionalities include:

Property Details: Store and display information such as specifcations, images, and rental terms.

Category Management: Categorize properties to facilitate easier searches by tenants.

6. Feedback Module

The Feedback Module allows users to provide and view feedback on properties and interactions. It includes:

Review System: Submit and read reviews from tenants and landlords.

Discussion Board: Participate in forums to discuss property-related queries.

7. Application Module

The Application Module tracks and manages rental applications. It includes:

Application Tracking: Monitor the status of applications submitted by tenants.

Document Management: Handle necessary documentation related to rental agreements.

8. Search Module

The Search Module enables users to fnd properties and information efciently. Features include:

Advanced Search: Utilize flters to search for properties based on various criteria.

Quick Access: Allow landlords and tenants to fnd specifc listings or user profles quickly.

Each module of the apnaroom.com project is designed to ensure a smooth and user-friendly experience, catering to the needs of tenants,

landlords, and administrators alike.

* **Gantt Chart**

The Gantt chart is a widely-used tool for visualizing the timeline and progress of a project. Named after Henry Gantt, an industrial engineer

known for his contributions to project management, this chart provides a clear and intuitive representation of project tasks and their durations.

In the Gantt chart, each project task is depicted as a horizontal bar. The length of the bar corresponds to the task's start and end dates,

providing a visual timeline for the project. This visualization helps in understanding the sequence of tasks, their durations, and their

interdependencies.

Key features of the Gantt chart include:

Task Duration: Bars represent the start and end dates of tasks, making it easy to track their progress over time.

Task Dependencies: Relationships between tasks are shown, highlighting which tasks are dependent on the completion of others.

Progress Tracking: Color-coding or shading within the bars can indicate the current status of tasks, such as whether they are on schedule,

behind, or completed.

Resource Allocation: The chart can also refect resource requirements, helping to manage and allocate resources efciently.

For the apnaroom.com project, the Gantt chart will be an essential tool for tracking project milestones, coordinating tasks, and ensuring timely

completion of each phase. It will facilitate effective project management by offering a comprehensive view of the project's timeline and

progress.

* **IMPLEMENTATION AND MAINTENANCE**

**TESTING**

Software testing is a process of verifying and validating that a software application or program.

The main aim of the testing is to find out the bugs in the developed system before implementing it. It is an important phase of a successful system. After codifying the whole programs of the system, a test is being performed on the system so developed. The output of the testing phase should match the expected results.

**Implementation** is the stage of a project during which theory is turned into practice. The major steps involved in this phase are:

* Acquisition and Installation of Hardware and Software :

The hardware and the relevant software required for running the system must be made fully operational before implementation.

* Conversion

The conversion is also one of the most critical and expensive activities in the system development life cycle. The data from the old system needs to be converted to operate in the new format of the new system. The database needs to be setup with security and recovery procedures fully defined.

* User Training

During this phase, all the programs of the system are loaded onto the user’s computer. After loading the system, training of the user starts.

Main topics of such type of training are:

* How to execute the package
* How to enter the data
* How to process the data (processing details)
* How take out the reports

After the users are trained about the computerized system, working has to shift from manual to computerized working. The process is called ‘Changeover’.

**Maintenance** is necessary to eliminate errors in the system during its working life and to tune the system to any variations in its working environments. It has been seen that there are always some errors found in the systems that must be noted and corrected. It also means the review of the system from time to time.

The review of the system is done for:

* knowing the full capabilities of the system
* knowing the required changes or the additional requirements
* Studying the performance.
* **SYSTEM SECURITY MEASURES**

Some of the measures can be taken as follow:-

* Various validation checks are being applied on all the forms for authenticated management of data.
* As well as various validations are also applied on the form controls so as top have reliable entry of data.
* Backup of Database must be done at the regular interval by the administrator.
* Updating the password at regular interval.
* **COST ANALYSIS**
* **Resource sharing:**

The main goal is to make all programs,equipments and data available to anyone on the network without regard to the physical location of the resource and the user.Users need to share resources other than files,as a printer.Printers are utilized only a small percentage of the time,therefore companies don’t want to invest in a printer for each computer.Network can be used in this situation to allow all the users to have any access any of the available printers.

* **High reliability :**

The goal of computer network is to provide high reliability by having alternative source of supply.For example,all files could be replicated on two or three machines,so if some of them is unavailable then other copies can be used.In addition,the presence

of multiple CPUs means that if one goes down,the other may be available to take over its work, although at reduced performance.For example applications, the ability to continue in the face of H/W problem is of utmost importance.

* **Saving money :**

Small computers have much better price and performance ratio than larger ones.Mainframes are faster roughly by a factor of ten than personal computers but they cost a thousand times more.This imbalance has caused many systems designers to build a system consisting of personal computers,one per user,with data kept on one or more shared file server machines.In this model,the user are called client and the whole arrangement is called the Client-Server model.

* **Scalability :**

The ability to increase the system performance gradually as the workload grows just by adding more processes.With centralizes mainframes, adding another processor is very expensive,so user must replace it with Client-Server model.New client and new server can be added as needed.

* **FUTURE SCOPE**
* **LIMTTATION**

Although utmost care has been taken to create a system which ensures proper working and is easy to use,yet the system faces some drawbacks which are:

* No option given to facilitate online payments
* Administrator comes to know status of stock only when he/she generates the product report
* **FUTURE SCOPE OF PROJECT**

At present this inventory management system includes valuing the inventory, measuring the change in inventory and planning for future inventory levels. Measuring the change in inventory allows the company to determine the cost of inventory sold during the period.

The inventory level and changes allow the company to plan for future inventory needs.

For the further enhancements regarding this project we can say –

* Automatically display the status of stock to the administrator as soon as he logins.
* A module for online receipt payment-which accepts receipts as through online payment gateway.
* **GLOSSARY**

Activity: In the context of apnaroom.com development, an activity refers to a set of interrelated tasks required to achieve a specifc milestone or

objective within the project lifecycle.

Analysis: The process of examining various components of the apnaroom.com system to break down complex requirements into manageable

parts for more detailed study and development.

Cost/Beneft Analysis: This involves evaluating the projected costs of implementing features on apnaroom.com against the anticipated benefts

to determine if the investment is justifed.

Database: A structured collection of data used by apnaroom.com to store and manage information about rental properties, users, and

transactions, allowing efcient access and retrieval.

Database Management System (DBMS): Software that manages and organizes the database for apnaroom.com, handling data storage,

retrieval, and security.

Data Element: The smallest unit of information in apnaroom.com, such as a single feld in a user profle or property listing.

Data Flow: The movement of information through different parts of the apnaroom.com system, represented by lines and arrows in diagrams.

Data Flow Diagram (DFD): A visual representation of how data moves through apnaroom.com, illustrating processes, data stores, and data

interactions.

Design: The process of creating technical and operational specifcations for apnaroom.com, detailing how the system will be implemented and

function.

Documentation: Written records of apnaroom.com’s development phases, including design specifcations, system requirements, and user

guides.

Entity: An object of interest within apnaroom.com about which data is collected and stored, such as users, properties, or transactions.

Feasibility Study: An assessment conducted to determine the practicality of proposed features or changes in apnaroom.com, evaluating

potential benefts and risks.

Form: A data entry interface used in apnaroom.com for users to submit information, such as property listings or rental applications.

Forms Control: Management of form design and usage within apnaroom.com to ensure data is collected efciently and accurately.

Forms Design: The process of creating and improving forms used in apnaroom.com to ensure they effectively capture necessary information.

Identifer: A unique key or attribute in apnaroom.com used to distinguish individual records, such as property IDs or user IDs.

Implementation: The phase where apnaroom.com’s system is installed and put into operation, including user training and data migration.

Information: Data that has been processed to provide meaningful insights, such as rental trends or user preferences on apnaroom.com.

Initial Investigation: Preliminary analysis to determine if new features or changes to apnaroom.com are feasible and worth pursuing.

Interdependence: The relationship between various components of apnaroom.com, where the functionality of one component may affect

others.

Invalid Data: Errors or incorrect entries in apnaroom.com’s forms, such as incorrect property details or user information.

Maintenance: Ongoing activities to keep apnaroom.com operational, including error correction, updates, and performance tuning.

Model: A representation of apnaroom.com’s system architecture and processes, used to understand and design the system effectively.

Modularity: The design principle applied to apnaroom.com, where the system is built in separate, manageable modules for easier maintenance

and updates.

Operating System: The software environment that supports apnaroom.com, providing the necessary platform for running the application.

Organization: The structured arrangement of components within apnaroom.com to ensure effective operation and achievement of project

goals.

Password: A security measure used in apnaroom.com to authenticate user access and protect sensitive information.

Planning: The process of outlining the course of action for developing and implementing features in apnaroom.com.

Post-Implementation Review: An evaluation conducted after apnaroom.com is launched to assess its performance and identify areas for

improvement.

Process: A series of actions within apnaroom.com that transform input data into useful output, such as processing rental applications.

Record: A set of related data in apnaroom.com, such as a property listing or user profle, treated as a single unit.

Relation: A two-dimensional table used in apnaroom.com’s database to organize and manage data efciently.

Reliability: The degree to which apnaroom.com performs consistently and dependably, ensuring accurate data and system functionality.

Security: Measures implemented in apnaroom.com to protect data and system components from unauthorized access and potential threats.

Set: A collection of similar objects or data items within apnaroom.com, such as a set of property listings or user accounts.

Source Code: The human-readable code used to develop and modify apnaroom.com’s software.

System: A coordinated arrangement of components within apnaroom.com that work together to achieve specifc operational objectives.

System Design: The detailed planning and specifcation of apnaroom.com’s technical and functional requirements to ensure the system meets

user needs.

System Development: The process of creating and implementing apnaroom.com, including identifying user needs, designing the system, and

executing the implementation.

System Development Life Cycle (SDLC): The structured sequence of phases used to develop and maintain apnaroom.com, from initial planning

to fnal implementation and maintenance.

System Integrity: Ensuring that apnaroom.com’s hardware, software, and data are protected from unauthorized changes and maintain

operational accuracy.

Systems Testing: The process of evaluating apnaroom.com to ensure that all components function correctly and meet specifed requirements.

System Analysis: The examination of apnaroom.com’s operations and interactions to identify problems and propose solutions for improvement.

System Analyst: A professional responsible for analyzing apnaroom.com’s requirements, designing solutions, and ensuring the system meets

user needs.

Task: A specifc unit of work assigned within the apnaroom.com project, managed through project planning and execution.

Unit Testing: The process of testing individual components or features of apnaroom.com to ensure they function correctly before integration.

Usability: The ease with which users can operate and navigate apnaroom.com, ensuring a user-friendly experience.

User Acceptance Test: A fnal test conducted to verify that apnaroom.com meets user requirements and operates as expected before full

deployment.

Validation: The process of confrming that apnaroom.com’s software performs accurately and reliably in both simulated and live environments.

Variable: A quantifable element within apnaroom.com’s system that can change over time, such as user data or system metrics.

Variable Cost: Costs associated with operating apnaroom.com that fuctuate based on usage, such as server costs or data storage expenses.

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