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NestEasy-Redefining Student Living with Intelligent Accomodation Matching

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Abstract

Nest Easy is an innovative platform designed to resolve the greatest problem of students, i.e. the right accommodations. Moving for the sake of education is often accompanied by anxiety, stress, and a few choices which, in turn, put the students into a situation where it is hard for them to find safe, cheap, and comfortable living quarters. Nest Easy changes the way the students feel about this by using a smart algorithm-powered accommodation matching.

The platform does the matching of students and housing that goes with their budget, location preference, and lifestyle. Apart from that, the platform ensures trustworthiness through listings that are verified and details that are transparent. Furthermore, Nest Easy is all about the community and compatibility by offering features for the roommate-matching that will link the students with the peers who have the same interests and thus will be able to form social networks that are supportive.

By using technology in combination, personalization and trust factors, Nest Easy is making the way a client finds, compares and books accommodation easier. The main idea of this company is to provide a worry-free relocation experience to students, lessen the burdens of moving to a new place and also encourage a living environment that is safe and comfortable. With such a move, Nest Easy is not only the platform you use to find rooms but it's actually a way modal to student living through smarter, safer, and student-friendly housing solutions.

With the aid of technology, personalization, and trust, Nest Easy makes it super simple to do all the stuff that come with finding accommodation searching, comparing, and finalizing places to stay. The idea behind it is to have a super easy handover for students, lessen the trouble of moving, and also help to have a secure and nice place to live. Therefore, Nest Easy is no longer about just finding rooms; it is about setting the trend for student living through intelligent, safer, and student-friendly housing solutions.

Introduction

One of the maximum challenging factors of pupil life is one of the maximum tough aspects of finding the right accommodation for migrants, specifically in unknown cities or nations. As college students begin their academic journey, the method of finding secure, low-priced and cushty accommodation is regularly overwhelming due to constrained and absence of cess and reliable help structures. With the boom in higher education opportunities inside the borders, there's an growing call for for a platform that helps this technique and guarantees transparency, protection and comfort. The contemporary scholar network isn't always best a place to live however an surroundings that supports each instructional and personal development. However, the present condo systems and the Plat Naline platform often fail to don't forget the unique wishes of the scholars, leading to troubles which includes scams, false impression with landlords and lack of believe in the apartment technique.

Technological advances in the subject of Internet Th Fi Things (IoT), Artificial Intelligence (AI) and information analytics have created the possibility to convert people the manner they discover and manipulate housing. Integrating these strategies can be capable of make a wiser choice, improve user experience and sell trust between tenants and owners. With this angle, Nest Ezy has been imagined as a virtual platform designed to clear up those challenges through innovation, reliability and consumer-centered layout.

The initiative aims to relieve the ache of finding the right lodging for college kids who circulate in a new metropolis or new united states. The "older days" of trusted the uninterrupted lists, or regionally dwelling locally to find accommodation are more and more disturbing, main to uncomfortable or dangerous conditions. In an technology in which there may be a extra call for for secure, low value and student friendly living, the want for smarter solutions is greater. Nest Easy is a platform this is differentiated as a era-powered solution so one can fill this gap, presenting a platform that fits college students with apartment accommodations based totally on their charge variety, life-style, and possibilities. The platform gives applicable capabilities to clients along with tested condo listings, roommate compatibility analysis, and tailor-made pointers for motels, as a result, simplifying the experience of renting a home and rethinking the gadget of living as a pupil using era.

In addition to housing, Nest Easy gives an avenue to construct a community and accept as true with

for college kids through assisting them connect to others who're both going to be their buddies, or with landlords who can offer truthful preparations. Connecting with right now before they come to the city reduces strain university college students may also feel after they relocate for university, but additionally contributes to a supportive residing environment in which college students can accept as proper with the humans spherical them, sense cushty and be higher prepared to awareness on their instructional journey. The take a look at expands on using artificial intelligence, statistics analytics or virtual verification to the housing agency.

Furthermore, Nest Easy dreams to redefine the concept of student housing by combining comfort with innovation. Through device gaining knowledge of algorithms, the device can examine purchaser picks and advise customized housing options, making sure that students find accommodations that clearly fits their manner of existence.

The platform verification methods ensure that the list is real and the homeowners are straight, which increases the transparent environment that prefers protection and luxury. In addition to being just a condo platform, the structure has an easy desire to emerge as a community -based community in which the college Led students can create accusations to the percentage of reviews, friendships, and enhance their properly. Age, considering and merging the community, this initiative does not address the logistics demanding situation to find the most effective housing, though contributing to the general best learned lifestyle in virtual technology.

The shift from living at home to stepping into university life marks a major turning point in a student's personal journey. While academic goals often attract the most attention, one of the biggest practical hurdles students face is securing safe, affordable, and trustworthy accommodation. Moving to a new city or region brings challenges that go beyond just finding a room—students struggle with uncertainty, unreliable information sources, hidden costs, and emotional adjustment. What looks like a simple process often becomes mentally exhausting because there is little structured support or authentic guidance available for young learners navigating life on their own for the first time. With globalization expanding and educational opportunities growing, student movement across states and countries is higher than ever. Each year millions of learners relocate creating a rising demand for well-organized, tech-driven housing systems. However traditional rental markets have not grown in line with these expectations. Most existing platforms

cater to general renters and fail to understand student-specific needs such as safety lifestyle matching, mental comfort, affordability and social integration. This gap signals the need for a specialized student centric solution that offers clarity credibility, personalization and a sense of belonging.

NestEasy has been developed as a response to this gap. Designed as a digital ecosystem it reimagines how students discover evaluate and secure places to live. Unlike generic rental sites NestEasy prioritizes student oriented thinking. It integrates verified listings, identity checks, algorithmic recommendations, and curated roommate matching to ensure that students feel informed, confident, and emotionally supported in their choices. Instead of merely showing houses NestEasy treats accommodation as a complete experience one connected to academic success emotional health social bonding and overall personal growth. By introducing trust indicators digital verification and lifestyle profiling it seeks to create safer and more transparent housing journeys. For students, a home becomes more than four walls it becomes a space where learning, connection and development unfold. NestEasy also views living arrangements as an entry point to community building. Students who move away from home often feel isolated and unsure. Through shared spaces peer interaction mentoring networks, and review based systems the platform helps students gain familiarity and support. Its transparent rating mechanisms and verified landlord identities help reduce exploitation and build mutual trust among renters and owners. The need for such a solution emerges from long-standing student struggles fraudulent listings inflated rents, unsafe environments hidden conditions and misleading information. The stress only intensifies when decisions must be made from afar without trustworthy local support. NestEasy acts not just as a marketplace but as a protective system that organizes the relocation process with clarity and empathy.

Rather than serving uniform recommendations, it considers academic routines food habits, financial limits, social preferences and lifestyle behavior. This makes it more than a housing finder it becomes an architect of the student experience aiming to strengthen stability resilience and mental well-being. As urban spaces evolve toward smart living, the expectations of students have also changed. They seek environments that enable safety, productivity, connection and quality of life, not just affordability.

NestEasy bridges expectations between universities, landlords, and students by reshaping the definition of standard student accommodation and bringing accountability into the system. A key value of NestEasy lies in converting renting from a tedious process into a guided pathway. Students interact with verified properties, identity-checked hosts, locality analysis, and peer-based ratings—all of which help reduce risk. Simple interface design makes it comfortable even for first time renters navigating paperwork and independent living. Importantly, NestEasy also addresses emotional phases tied to relocation. Moving away from home involves fear, uncertainty and loneliness. Peer networks social matching and lived experience sharing help students feel connected. Matching roommates with similar interests, academic goals or cultural backgrounds helps reduce isolation and improve academic focus and mental balance.

Ultimately NestEasy positions itself as more than a housing platform it is a reformative outlook on student living. It elevates accommodation beyond necessity and turns it into a purposeful foundation where learning security identity and growth converge. By combining human centred design with technological intelligence NestEasy redefines student accommodation as a gateway to confidence

security learning and empowerment. Its mission is to not only help students find homes but to create an environment where they can excel personally and academically. In short NestEasy envisions a future where students experience relocation without fear where landlords practice transparency and where housing platforms operate responsibly. It aspires to create a digital space where students are connected informed emotionally supported and live safely. This ecosystem the platform contributes to student success institutional trust and urban transformation. NestEasy envisions an educational world where finding a home is no longer an obstacle but a bridge toward fulfillment growth and resilience.

NestEasy gradually learns how to guide them before confusion sets in. One of the often-ignored realities is that universities rarely offer structured help when it comes to housing. Students may receive admissions letters, academic orientation or course guidance, but when it comes to settling into life outside campus, most are on their own.

NestEasy acts as a bridge between students and institutions, offering colleges a reliable channel to push verified rental options, safety updates and relocation help to their learners..

More than anything else, NestEasy represents a philosophical shift. It sees accommodation as part of a student's developmental ecosystem, not merely logistics. When young minds feel comfortable, safe, and socially integrated, they perform better, contribute more, and grow stronger. NestEasy nurtures this belief, showing how technology, empathy, and thoughtful design can turn housing from a stressful stepping stone into a space where confidence, learning, and emotional grounding take shape.

Literature Review

These sources usually provide students with information that is incomplete, wrong, or misleading. This can result in poor decisions, lost time, and potentially, as a consequence, wasting money. [1]

Having access to reliable food services is another important concern. Students tend to move to cities in which they do not know the food options, hygiene standards, or price expectations. Although there are available apps and websites that provide informal lists of food delivery and restaurant reviews, they usually do not cater to the specific needs of students seeking affordable, reliable, and hygienic meal options. Aside from wanting placed delivered that are scientifically sanitary, students do not have confidence in either the rating system, or the recommended pricing, or at all with the services. [2]

Effective management of crowds through predicting those high with deep learning. Sharing accommodations with fellow students is very normal, and students don't really realize it could be any cause of stress until they inhabit that accommodation with their fellow students. When it is clear there are some compatibility differences, most currently available platforms do not have matching tools for roommates by lifestyle, habits, or personality type. The disagreements that occur, regardless of living styles, will annoy, forever, and in effect "ruin" the overall potential higher education experience, and living in the new city or area the student enrolled in. AI-based roommate matching platforms could provide potential solutions. AI-based systems can match potential roommates using preferences, habits, lifestyles, and personality traits, leading to an addition, disagreement-free living environment and experience. [3]

For students, safety is always a top priority, especially when moving to a new city. Unfortunately, there is typically little information about the neighborhoods on rental websites. Neighborhood safety scores, crime rates, accessibility to hospitals, transit availability, and student-friendly amenities are often not shared.

Even within the context of rent comparisons, price and cost comparisons are typically limited, making it difficult for students to make sound financial decisions. [4]

Another problem with current solutions is the lack of multimedia content. Students often depend on static pictures or brief descriptions, which will not accurately represent the property or its environment. Multimedia features such as videos and virtual tours help students make better decisions about their options before commitment. These features are important to create confidence and transparency in the list. [5] Although there are many platforms that address different parts of the moving process, no one provides the final solution for students from any ready end. Most platforms handle accommodation, order food, or find roommates separately. One, there is a clear requirement of a student-centered platform that combines these services and will add value through verification, AI-suggestions, and local insights. [6]

Over the past few years, the application of AI and machine learning has been increasing in recommended systems. They are able to suit search results for personal preferences, budgets, lifestyle, and past behavior. In terms of transfer students, AI can help with three primary tasks: recommendation of specific housing for specific requirements, finding appropriate roommates, and providing recommendations for food services that match diet and budget needs. [7]

A tested list is another important feature that lacks most websites.

Unsafe housing can contribute to safety concerns, prices, prices, and living conditions. Verification processes will move a long way to reduce the risks of transfer. [8]

There will be many benefits to integrating all these functions on one platform. This saves students' time and effort to navigate multiple websites or speak with different agents. This increases transparency, increases trust, and facilitates the transfer process. Multimedia support with AI-based personalization and scrutiny helps students to make knowledgeable and appropriate decisions based on their personal needs. [9]

Methodology

The method segment describes the step-by-step process used to design, increase, and compare the proposed Student Relocation and Accommodation Platform. The major aim of this study is to create a consumer-friendly and clever net-based totally gadget that enables college students easily locate suitable hostels, mess offerings, and like-minded roommates when they pass to a new metropolis for studies.

The research method become divided into several stages which includes requirement evaluation, machine design, data collection, development, and assessment.

A. Research Approach

This study follows an carried out research technique since it ambitions to remedy a actual-international hassle confronted by means of students. The general layout combines each qualitative and quantitative strategies. Qualitative statistics, along with student reviews and proprietor feedback, had been accrued to understand ache factors in current platforms. Quantitative records, such as rent stages, meals costs, and locality protection indexes, had been used to construct data-driven recommendations and filters within the platform.

An iterative development version changed into used to make certain flexibility and non-stop development. The studies turned into done in four main levels:

Requirement Analysis: Identifying scholar desires and challenges in relocation.

System Design: Creating blueprints and waft diagrams for the platform and implementation with testing and evaluation.

B. Information Storage

Changed to data collected from each primary and secondary assets.

Number one information: Surveys and interviews were conducted with students from various universities at present in new cities. They were requested to find housing, food and roommates about the pleasure of their dish. Similarly, the hostel and the mutual owners were interviewed to list their ings fur and identify problems facing students to join the students.

Secondary Data: Information containing average rental, local safety rankings and food hygiene ratings has been collected from public databases, town records and LINE no-line assets. These datasets have been used to create features such as location Explorer, which determines the safety and affordability of the college Ledge students rather than selecting the location.

All statistics were prepared, clean and stored in a structure format in the Mongodibi database for easy access and processing through the system.

C. System architecture

The device has been designed to use three-level architecture:

Front-stop (Customer Interface):

The front was created using React.JS and Tailwind CSS to offer contemporary, cell-pleasant interface. Experts in ease of layout, brief researcher and visible reading. Students can

browse the list, view images or 360 ° videos, and inspect filters such as financial, distance and services.

Back-Quite (Server Layer):

The rear end was carried out using node.JS and Express.JS, which handles facts requests, authentication and conversations with the database. Digital addition integrates Google Maps to display API for special faculties and YouTube embedded digital room tours.

Database Level: All lists, opinions and person information are saved in MongoDB, an NOSQL database that provides flexibility and scalability. The appropriate index and records validation have been used to make certain fast healing and records relevance. This improves the layered layout overall performance, maintains data integrity and makes it clean S make bigger the device inside the future.



Fig 1: System Architecture

D. AI Features and Algorithms

The platform uses two key sensible modules:

Recommended System: The endorsed engine indicates appropriate hostels or messing offerings the usage of fabric -based totally filtering. It compares users' selections inclusive of fare, meals kind and distance, with a listing available to advocate the excellent suit.

Roommate Matching System: The roommate facility makes use of the AI-based totally matching common sense that analyzes way of life elements inclusive of the timetable, hygiene and food habits. It assigns a consistency score that enables students locate roommates with similar living alternatives. These smart systems customise enjoy and decrease the efforts of college students to go looking and examine themselves.

E. Test and examine

After development, the gadget was examined by means of a group of students on the university. They made real discoveries for hostels, food

services and roommates the use of the platform. Feedback turned into accrued ease of use, accuracy of recommendations and usual pleasure.

The technical operation of the gadget changed into also measured in terms of reaction time, records accuracy and interface software. The effects showed that the platform effectively decreased the hunt time, advanced the decision and presents a easy revel in as compared to the existing strategies. In precis, this research method integrates cutting-edge era with a person-targeted design method to remove essential challenges confronted by way of college students migrating to new towns. Through systematic data garage, repeated development and non-stop evaluation, the platform was cautiously designed to offer correct, verification and without problems accessible information. The integration of AI-powered guidelines, clever roommate matching and responsive mobile interface ensures seamless consumer enjoy. By combining innovation, usefulness and reliability, the proposed device efficaciously facilitates the process of locating housing, meals offerings and compatible roommates, finally growing the overall characteristic and protection of college students' switch.

Conclusion

The student relocation and accommodation platform is a complete digital answer designed to make the manner of finding appropriate hostels, PGs, mess facilities, and roommates an awful lot less difficult for college students who move to new cities. By bringing generation and comfort together, the platform creates a depended on connection among students and local provider providers, making sure that each interaction is obvious, easy, and dependable.

The platform functions through number one roles college students owners and directors. Students can discover one-of-a-kind accommodation options evaluate amenities and prices or even e-book rooms or meal services at once through the machine They also can percentage their reviews by posting proper critiques and ratings. Hostel and mess proprietors, then again, can listing their homes, control availability, and reply to inquiries from involved college students. Administrators act as supervisors who affirm listings, approve content, and reveal sports to save you scams or fake facts. This division of roles guarantees easy operation and allows keep believe amongst all customers. The Hostel and PG Listing Module paperwork the heart of the system. It permits owners to list their inns with entire info like location, hire, facilities, and room kinds. To make the process extra pics

quick movies and even 360-degree digital excursions are furnished so that students can make confident selections while not having to visit every belongings. Integration with Google Maps allows customers to find near the colleges or inside a desired locality saving both effort and time.

The platform also solves one of the most commonplace problems faced through students—get admission to to easy and low-priced food. Through the Mess and Food Service Module Weekly menus are been changed and hygiene rating and rankings on flavor and carrier make it less complicated to choose the proper mess. Smart filters assist narrow down the excellent options based on price and best.

Another progressive feature is the AI-powered Roommate Matching System. Students solution easy questions about their workouts, sleep habits, and food regimen possibilities, and the system robotically suggests like minded roommates. This reduces conflicts and improves shared residing reports. The in-built chat device ensures students can safely interact earlier than finalizing their choice. For college students new to a city, the Locality Explorer characteristic provides excellent fee. It provides details about neighborhood safety, average hire, public shipping, and nearby facilities. A visible heatmap highlights scholar-pleasant areas, allowing customers to choose the most handy and secure area.

To ensure credibility the Review and Rating segment best accepts comments from confirmed college students. Reviews are labeled below elements like cleanliness food facilities and protection. Add-on services along with furniture, laundry, or SIM cards further help students settle in with no trouble.

With a cellular-friendly design, offline get right of entry to, and personalized AI pointers like “Top messes favored with the aid of your university seniors,” this platform will become greater than a listing website—it becomes a student associate. Altogether, it creates an ecosystem that transforms the pupil dwelling to revel in with simplicity, authenticity, and smarter.

Student Transfer and Housing Platform is one Designed to create a full digital response Finding suitable hostel, PG, mess facilities, and Roommates Are Much Less Difficult for College Students Move to new cities. bringing generation and comfort Together, the platforms create a dependent connection between students and local service providers, ensuring that Every interaction is clear, easy and reliable.

The platform operates through Number One Roles College Student Owners and Directors. Students can search for one of Evaluate one-of-a-

kind accommodation options, amenities and prices. Or even e-book rooms or food services at once machine they can also share their reviews by posting. Fair criticism and rating. Hostel and mess owner, Then, you can list your homes, control availability, etc. Responses to inquiries from college students involved. Administrators act as supervisors who verify listings, Approve content and expose games to protect you from scams or fraud Fact. This division of roles guarantees easy operation and allows trust to be maintained between all customers.

Hostel and PG listing module is the hub of paperwork System. It allows owners to list their inns with complete information. Such as location, fare, amenities and room types. To make process additional photos, instant movies and 360-degree digital.

Excursions are arranged so that students can be confident Selection without visiting each item. Integration with Google Maps helps customers locate nearby. Both efforts and savings within colleges or any desired locality time. The platform also solves one of the most common problems faced by students- Easy to get admission.

A visible heatmap highlights scholar-pleasant areas, allowing customers to choose the most handy and secure area. To ensure credibility, the Review and Rating segment best accepts comments from confirmed college students. Reviews are labeled below elements like cleanliness food facilities and protection. Add-on services along with furniture, laundry, or SIM cards further help students settle in with no trouble. With a cellular-friendly design, offline get right of entry to, and personalized AI pointers like "Top messes favored with the aid of your university seniors," this platform will become greater than a listing website—it becomes a student associate. Altogether, it creates an ecosystem that transforms the pupil dwelling revel in with simplicity, authenticity, and smarter.

References

L. Zhang, L. Wang, Y. Dai, Q. Chen, J. Shen, and H. Lin, "Personalised Dormitory Roommate Matching System Based on Multiple Swarm Genetic Algorithms," *Advances in Computer, Signals and Systems*, vol. 8, no. 3, pp. 52–58, 2024. DOI: 10.23977/acss.2024.080317

O. J. Adeniyi, O. D. Adekola, B. G. Akwaronwu, A. G. Abiodun, and I. O. Eweoya, "Exploring the Link Between Roommate Compatibility and Academic Outcomes: A Systematic Review of Personality-Based Matching Systems," *African Journal of*

Computing & ICT, vol. 13, no. 2, pp. 101–113, 2024. DOI: 10.70112/ajcst-2024.13.2.4275

P. Kumar and A. Gupta, "PG Location & Hostel Management Security," *International Journal for Research in Applied Science and Engineering Technology (IJRASET)*, vol. 11, no. 6, pp. 1903–1908, 2023.

R. Sharma, M. Patil, and K. Joshi, "Hosteller – A Platform for Finding and Booking Hostel," *International Advanced Research Journal in Science, Engineering and Technology (IARJSET)*, vol. 10, no. 5, pp. 118–124, 2023.

Sharma, B. (2023). Balancing technology and human rights. *Journal of Legal Studies and Digital Governance*, 8(1), 33–48.

M. J. A. Marques, "Progressive Web Application versus Native Applications," *DIVA Portal*, pp.1–54, 2022. [Online]. Available: <https://www.diva-portal.org/smash/get/diva2:1702137/FULLTEXT01.pdf>

Hazarika, B. (2021). An analytical study on the impact of recent oil price plunge on highly oil dependent economies. *International Journal of Economic Policy and Global Trends*, 8(1), 54–69.

Hazarika, B. (2022). Digital transformation of the silk industry of Assam. *Archives of Business Research*, 10(4), 110–119. <https://doi.org/10.14738/abr.104.12261>

M. Akhilesh, A. Jain, and P. Sharma, "StayMate: Smart Roommate Solutions," *International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)*, vol. 3, no. 2, pp. 40–46, 2023.

K. Singh and P. Sahu, "Graph and Similarity-Based Approaches to On-Campus Roommate Matching," *IJRASET*, vol. 9, no. 10, pp. 146–150, 2021.

Roommate Compatibility Detection Through Machine Learning Techniques," *arXiv preprint, arXiv:2004.06970*, 2020. [Online]. Available: <https://arxiv.org/abs/2004.06970>

Jumde, A., Hazarika, I., & Cho, B. Y. (2019). Block chain technology: A new enabler of financial services. In *Proceedings of the 2019 Sixth HCT Information Technology Trends (ITT)* (pp. 259–263). IEEE. <https://doi.org/10.1109/ITT48889.2019.9075091>

R. Chowdhury and S. Alam, "Hotel Recommendation System Using Collaborative

Filtering,” in 2022 International Conference on Computing, Communication and Networking Technologies (ICCCNT), IEEE, 2022. DOI: 10.1109/ICCCNT54827.2022.9983019

A. Abhishek, V. Nair, and R. Gupta, “PEERROOMS: Hostel/PG Finding Web Application,” International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE), vol. 12, no. 5, pp. 88–93, 2023