

Analysis

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Analyze the Requirements

Python is an interpreted, high-level, general-purpose programming language. Created by van rossum and first released in 1991, Python's design philosophy emphasizes code readability with its notable use of significant whitespace. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.

Having machine learning and data analysis packages, Python has extensive support for research. Most important features of Python are

- High-level programming language
- Interpreted
- Multi-purpose
- Extensible
- Multi paradigm

Abstract:

Online PlayGround Booking System is the theme of our project. The working of code is as follows.

- First the user will be asked to enter his name and mobile number.
- Then he will be given with two options whether to make a new booking or to cancel any booking that was done previously by him.

• If he selects the first option i.e to make a new booking then first he will be asked to choose the type of ground he want to book.

- After choosing the type of ground like cricket ground, football ground etc.... he will be asked to select the month among the months available for booking(Booking can be done only in advance of maximum 90 days) .
- After choosing month, He will be asked to choose the date he wants.
- If the slot on which customer wants in is empty then he will be asked for confirmation to complete the booking.
- If he chooses yes then booking will be completed.
- If he chooses no then booking process done till then will be canceled.
- If the date slot that he chose was not empty then he will be asked to change the date as it was already booked.
- And that process completes as his choice of new date.
- If any person wants to cancel his any booking that was done previously then first he will be asked the type of ground that he booked.
- And then he will be asked the date slot he booked for.
- If the data is really present then that booking will be canceled.
- If the data he entered is not present then he will be asked to re-enter the data from the beginning.
- First I planned independent views on creating project.
- Later, finalize the best view of project.

- Made the programming of taking inputs and taking care of exceptions and errors while taking those inputs and the programming part for file handling i.e storing the data in excel files

Figure out what you need & want

Compile a list of all the things needed, and then I sorted the list into two columns: must-haves and nice-to-haves. This will help you understand the difference between what business needs and wants. And that will ultimately impact purchasing decision.

Here are some of the differences between basic and complex booking software systems. Align wants and needs list with this one to figure out which type of booking system needed.

Basic online booking system requirements:

- SQL-based
- Payment options
- Inventory system
- Real-time booking
- User-friendly interface
- Customer support
- Integrations with an email marketing software

Complex online booking system requirements:

- SMS and email automation
- Email customization
- Integration with third-party software
- Detailed report
- Voucher and promo code management

Company's Goals

Has provided input and you have list of must-haves and nice-to-haves. Company's goals to this list to draw a clean line between those two columns. Sure, having a particular feature is nice, but if it does not align with my goals, you shouldn't really be making that extra investment. The key is to focus on what is important for business.

GOAL

The main purpose of online playground booking system is to allow potential customers to self-book and pay through website, securely store customer's data.

An online booking system is so much more than just a piece of software that reserves an appointment with your business.

- Keep your business running 24/7
- Security
- Customer experience

Budget

In an ideal world, you shouldn't base your decision on the cost of the software. However, in the real world of business, you need to figure how much you are willing to pay for an online playground booking system. If you go with a standard option, you will need to factor in the cost of commissions and fees as that would affect your bottom line and profit margins.

At the same time there are similar products in the market for the low cost or better requirement and high cost. So first have to see the costumer's requirements and how can I get it better?. Later the time and production of software cost is calculated. Integrated whole things can decide with the Budget.

Is it Simple & Easy to Use ?

One of the first things i need to think about while looking for the right online booking system is simplicity. How easy is it to use? Will customers find it user-friendly and easy to book? Is it easy to integrate with the other systems you are using? Think about your CMS system!

Time is essential in business and one of the main booking system requirements is simplicity and ease of use.

The best trick I know of keeping my code simple is to write it for better understanding. So, started implementing GUI in the Python to look and use for customer interface.

GUI uses structural elements that together define the appearance of the interface.

- It is user-friendly and simple.
- It is attractive for non technical users.
- No need to execute commands for carrying out functions like opening file, saving etc.
- Look and feel is better than text interface
- It is much better than command driven interface which has many drawbacks.
- User can switch quickly between tasks on the GUI interface.

Policy

User data is collected, stored, and used with data protection regulations to build trust among users. Provide transparent information on the conditions and process for canceling bookings and obtaining refunds.

Clearly state any applicable fees. We Implement robust encryption measures to protect users' financial information during transactions. Clearly communicate the security measures in place. Cover aspects like usage rights, responsibilities, and prohibited activities. And ensure that pricing information is transparent and does not involve hidden fees.

Clearly explain any additional charges, taxes, or fees that may apply. Clearly disclose any partnerships or collaborations with third-party services and outline how our user data may be shared in such cases. Community guidelines to maintain a positive and respectful environment.

Software Integrtrion

Yes, The ease of integrating software into an online booking site depends on several factors, including the complexity of the software, the architecture of the existing site, and the availability of appropriate APIs (Application Programming Interfaces).

Some of the software that is integrated are payment services integrated to facilitate secure online payments.

Integrating tools like Google Calendar, Microsoft Outlook Calendar, or specialized scheduling software enables users to check availability and book slots for the available stadium.

What about the quality of Customer Support?

Quality customer support is crucial for an online booking site to build trust, resolve issues promptly, and enhance the overall user experience.

Providing timely responses to customer inquiries and issues. Quick acknowledgment and resolution contribute significantly to customer satisfaction. Supporting through various channels such as live chat, email, and phone, providing users with options based on their preferences and urgency of the issue. Using this feedback to identify areas for improvement and address recurring issues.

Wrapping Up

Modules and Libraries used:

In project I have imported xlwt(Excel write) , xlrd(Excel read) libraries. And also used some of the modules(functions) of those libraries for the project.

xlwt:

- xlwt stands for Excel Write.
- This is a library for developers to use to generate spreadsheet files compatible with Microsoft Excel versions 95 to 2003.
- The package itself is pure python with no dependencies on modules or packages outside the standard python distribution.
- `add_sheet(sheetname)` – This method is used to create worksheets in workbook.
- `save(filename)` – This method is used to save the workbook to a file in Excel format.
- `write(row,col,data)` – This method is used to write a cell to a worksheet.

xlrd:

- xlrd stands for Excel Read.
- This is a library for developers to use it to extract data from Microsoft Excel™ spreadsheet files.
- It is pure python.
- It is strongly supported for Excel dates.
- It is Unicode aware.
- It can read data from .xls or .xlsx files.
- This package presents all text strings as python Unicode objects.
- `book=xlrd.open_workbook(filename)`- This method is used to open the workbook in read mode
- `book.sheet_by_name()` and `book.sheet_by_index()` will load the requested sheet if it is not already loaded.
- `book.sheets()` – This method will load all unloaded sheets.
- `cell()` – This is a convenience method for the frequent use case where the name refers to a single cell.