1. Admin can create master entries like:
   1. Sports with mode option like per person / full ground / both
   2. Grounds with max capacity at a time.
   3. Time Slots with peak / nonpeak hours option
   4. Plans – hourly / monthly / yearly with duration days : contains base price for different combinations with peak\_hour\_multiplier and weekend\_multiplier .
   5. Specify pricing for each combination
   6. Create bookings
   7. Collect payments based on the selected options
   8. Give discounts - if wish to
   9. Cancel or reschedule the bookings
   10. Send notifications based on different booking status & different payment status, also for the upcoming booking, expire booking for renewal.
   11. Create policies for cancellation and rescheduling information and show in the main page.
   12. Can cancel & reschedule the booking, Notification should be sent for this also.
   13. Manage users.
   14. can view everything with complete information
   15. get the reports of all users, all facilities usage, all bookings & payments with status, daily & periodically revenue & of every aspect of the business to analyze with text format reports along with charts etc.
   16. can view the list of pending payments.
   17. Can collect the pending amount as and when required for which we need to send reminder to pay.
   18. Also need to keep record of coupon usage because coupons will have the validity period along with no of times usage for the specified sport and plan.
   19. Admin can have all the controls over every module to add, edit, delete, view and update any time.
   20. All the view and report sections will have print preview export to excel and pdf options
   21. Also, in view section sorting on different fields in ascending or descending options should also be available
   22. Also, we should have the option to select the view all records or selected specific only
   23. Search option should also be available whenever required
   24. Also edit, deactivate, delete options should be available whenever required
2. Client can
   1. Clients can only view the facilities, can book a slot and do payments:
   2. can view his previous & upcoming booking details means own information.
   3. cancel & reschedule the booking based on the policy

Key Points :

1. Sports can be booked per person or full ground. it depends on the sports like turf can be booked full on hourly basis, but swimming and badminton can be booked per person or full ground on hourly or monthly basis.
2. Max capacity can be defined only based on per person booking option available for specific ground like small pool will have 10 at a time and big pool 30 at a time likewise for other grounds, whereas, for full ground, it’s not needed.
3. Some slots like 9 am -3 pm will not be available on week days (Monday to Saturday) due to school hours but available only on Sundays and on holidays.
4. swimming and badminton will be basically booked on monthly basis but some times it can be booked on hourly basis also whereas turf can be basically booked on hourly basis but some time it can be booked on monthly basis as well.
5. time slots will be same for all sports, but they will be peak or nonpeak hours.
6. pricing will depend on sport, ground, plan (hourly/monthly/yearly etc.), booking mode (per person/full ground), time slot (peak/nonpeak), day (week/weekend/ any specific day) in case of hourly plan.

Booking Module

Booking can be done by any user or even by admin

For booking Steps will be followed as

* + 1. User (any user / admin) can select:
    2. sport & ground of that sport
    3. Based on selected sport it should give the option of booking mode .
    4. plan ( hourly/Monthly etc.) & then BOOKING mode (per person/full ground)
    5. Based on the mode selected, number of participants should be asked in case of per person mode but not allow more than the max capacity of the selected ground
    6. Ask for the no of hours in case of hourly plan.
    7. select booking date in case of hourly plan or start date in case of monthly or yearly plan & Booking date should always be either current or future, no past date.
    8. then calculate the end date according to the duration days for that plan field of plans table, also show the end date.
    9. Based on the selected sports, ground, booking date and number of participants, first of all we need to find out the available slots and available capacity and show in the list with available slots and available capacity/max capacity.
    10. Max capacity will be fetched from ground table based on the selected ground.
    11. Available capacity will be calculated from booking slot table where all the bookings with same combinations will be first searched from booking table and then calculate the sum of  number of persons of all those bookings from booking slot table, then this total will be deducted from the maximum capacity, now this number will be available capacity.
    12. Show the list of time slots with available capacity/max capacity, by using different colour codes like different colours for available with max capacity, available with less capacity and full booked / unavailable time slots, based on the selected combination for specified data i.e. sport, ground, date(s) and for the required no of persons.
    13. Now from this list user can select the time slot(s).
    14. After all these entries, we need to show the sumary with the selected options along with the total booking amount which will be based on selected sport, ground, plan, mode, time slot(s) and no of persons.
    15. For the calculation of the total booking amount first of all we need to retrieve the base price from plan master table based on selected sport, ground and plan & then following steps are to be followed :

## Calculation Logic

### Case 1: Plan = "hourly" AND Mode = "per\_person"

1. Retrieve base price for hourly plan
2. For each selected time slot:
   * Check if time slot is during peak hours
   * If peak hour: slot\_amount = base\_price × peak\_hour\_multiplier
   * If not peak hour: slot\_amount = base\_price
   * Check the date of the time slot to determine day of week
   * If weekend: slot\_amount = slot\_amount × weekend\_multiplier
   * Store this calculated amount
3. Sum all slot amounts: total\_slot\_amount = sum of all slot\_amounts
4. Final amount: total\_booking\_amount = total\_slot\_amount × number\_of\_persons

### Case 2: Plan ≠ "hourly" AND Mode = "per\_person"

1. Retrieve base price for the specified plan
2. For each selected time slot:
   * Check if time slot is during peak hours
   * If peak hour: slot\_amount = base\_price × peak\_hour\_multiplier
   * If not peak hour: slot\_amount = base\_price
   * Store this calculated amount (no weekend multiplier applied)
3. Sum all slot amounts: total\_slot\_amount = sum of all slot\_amounts
4. Final amount: total\_booking\_amount = total\_slot\_amount × number\_of\_persons

### Case 3: Plan = "hourly" AND Mode = "full\_ground"

1. Retrieve base price for hourly plan
2. For each selected time slot:
   * Check if time slot is during peak hours
   * If peak hour: slot\_amount = base\_price × peak\_hour\_multiplier
   * If not peak hour: slot\_amount = base\_price
   * Check the date of the time slot to determine day of week
   * If weekend: slot\_amount = slot\_amount × weekend\_multiplier
   * Store this calculated amount
3. Sum all slot amounts: total\_booking\_amount = sum of all slot\_amounts
4. Final amount: total\_booking\_amount (no person multiplier applied)

### Case 4: Plan ≠ "hourly" AND Mode = "full\_ground"

1. Retrieve base price for the specified plan
2. For each selected time slot:
   * Check if time slot is during peak hours
   * If peak hour: slot\_amount = base\_price × peak\_hour\_multiplier
   * If not peak hour: slot\_amount = base\_price
   * Store this calculated amount (no weekend multiplier applied)
3. Sum all slot amounts: total\_booking\_amount = sum of all slot\_amounts
4. Final amount: total\_booking\_amount (no person multiplier applied)

## Key Rules Summary

* **Weekend multiplier**: Only applied when plan = "hourly"
* **Person multiplier**: Only applied when mode = "per\_person"
* **Peak hour multiplier**: Always applied when time slot is during peak hours
* **Multiple slots**: Calculate each slot individually, then sum all amounts
  + 1. Now after showing the summary the user can click on the book now button.

On clicking this button (at the time of saving booking )we need to validate the data as

* + No empty data
  + No duplicate records
  + Number of participants cannot be more than the available capacity
  + Add record in booking table with all valid data and with booking status as “confirmed”, also add records in booking slot table . Total number of records in booking slot table will be equal to the number of dates multiplied by the number of slots selected for that one booking containing date, slot and no of participants.
    1. At this time, we need to call payment module for getting the payment done.
    2. In this module first of all we need to check for the login whether booking is being done from admin login or other users.
    3. If it is from Admin login then mode of payment will be cash/upi/card and according to the selected option , date and utr or account details will be asked.
    4. If Admin wishes, can give discount also.
    5. If it is from other users then mode of payment will be upi/card (no cash option) and according to the selected option, date and utr or account details will be asked.
    6. If a client has any coupon/credit, he can apply at that time to avail discount.
    7. After collecting all these data, the final amount will be calculated to pay.
    8. At the time of booking user can pay full or partial amount.
    9. accordingly we need to store the record in payment table.
    10. Update the payment status as “paid/partial/unpaid/failed/refunded” according to the condition in payment table.
    11. At this time, payment status as “paid/partial/unpaid/failed/refunded” according to the condition in booking table also.
    12. send a message on mobile or email the receipt containing booking details along with the payment details & pending amount if any.

Payment Module

1. Once the booking is done but payment is partially done.
2. User has to pay before availing the ground.
3. User / Admin can view the list of bookings with pending amounts to be paid .
4. Select the booking for which pending amount is to be paid then click on the pay now button.
5. It will call the payment module.
6. In this module first of all we need to check for the login whether booking is being done from admin login or other users.
7. If it is from Admin login then mode of payment will be cash/upi/card and according to the selected option, date and utr or account details will be asked.
8. At this time discount should not be given because this is called for paying the remaining amount.
9. If it is from other users then mode of payment will be upi/card (no cash option) and according to the selected option, date and utr or account details will be asked.
10. At this time coupon/credit, can not be applied because this is called for paying the remaining amount.
11. Add record in payment table and Update payment status in payment as well as in booking table of the same booking also update the paid amount of that booking in booking table as as previous paid amount+ current paid amount.
12. send a message on mobile or email the receipt containing booking details along with the payment details & pending amount if any.
13. Validation: valid entries if mode is not cash then utr/ account details cannot be empty etc.
14. Refresh the list of pending payment

Key Points :

* 1. Payment module can be called from any login and from different modules: based on its calling module and login, actions and fields will be different
     + Based on user - (any user login like customer manager or admin) : it will display different fields like

1. Admin - discount will be displayed and asked to enter

Also mode of payment will be cash/credit/upi

            b. Customer - coupon /credit will be displayed and asked to enter and apply . Also mode of payment will other than cash.

* + - based on its calling module –
      1. From booking on clicking the book now button: it will show discount/ credit/coupon and ask to enter the data also show the total amount to be paid and ask for the amount paid.
      2. From pending payment on clicking of pay now button after the selection from list : it will not show discount/ credit/coupon and not ask to enter the data also will show the pending amount to be paid and ask for the amount paid.

Booking status Updation :

Booking status can be updated based on :

1. Initially : “Confirmed”
2. Booking Date is passed and the amount is fully paid : “Completed”
3. Booking Date is passed and the amount is pending : “Confirmed”
4. In case of cancellation : “Cancelled”

Payment status can be updated based on :

1. Fully Paid : “Paid”
2. Partially paid : “Partial”
3. Not Paid : “Un paid”
4. Payment Failed at the time of booking: “Failed”
5. In Case of cancellation and amount is refunded : “Refunded”

prepare the complete sports booking software layout begin with the welcoming screen having information about the company, available facilities, calendar view, login/registration for users, policies, etc.

**Booking Policy**

* Bookings must be made for current or future dates only
* Advance booking recommended for peak hours
* Full or partial payment accepted at booking
* Confirmation SMS/Email will be sent

**Cancellation Policy**

* 24 hours advance notice required
* 50% refund for cancellations within 24 hours
* No refund for same-day cancellations
* Admin approval required for special cases

**Rescheduling Policy**

* Free rescheduling with 24 hours notice
* One-time free rescheduling per booking
* Subject to availability
* Additional charges for peak hour upgrades

**General Rules**

* Follow dress code for each facility
* Maintain cleanliness and hygiene
* No outside food/drinks in pool area
* Report damages immediately