### **Comprehensive Feature List for Appointment Scheduler System**

#### **1. Highly Customizable Service Management**

* **Service Creation and Management**:
  + Create, edit, delete, and manage various types of services.
  + Define specific rules for each service, such as:
    - Capacity limits (e.g., number of customers per session).
    - Duration should be customizable for each appointment a selected start time and end time duration
  + Ability to categorize services (e.g., therapy, medical, virtual appointments) and the categories should be customizable and created by the user
* **Service Flexibility**:
  + Allow for the addition, modification, or deletion of services as needed.
  + Ensure services can be tailored to different appointment types,

#### **2. Customer Profiles with Historical Data**

* **Detailed Customer Management**:
  + Create and maintain comprehensive profiles for each customer.
  + Store historical data, including past appointments, cancellations, and service usage.
  + Customize rules for each customer regarding service usage (e.g., maximum hours per week per service).
* **Historical Tracking**:
  + Track and report on the customer's engagement with different services over time.

#### **4. Flexible Staff Management**

* **Staff Scheduling**:
  + Set and modify availability schedules for each staff member.
  + Indicate when staff are available, unavailable, or on leave.
* **Automatic Conflict Resolution**:
  + Automatically cancel a appointment if a staff member becomes unavailable and
  + Notify users of any conflicts or cancellations due to changes in staff availability.
  + **Staff service selection**
  + Each staff should be assigned that they do only some of the services for what they are approved for.

#### **5. Advanced Recurring Appointments**

* **Recurring Appointment Management**:
  + Support for creating and managing weekly or monthly recurring appointments.
  + Recurring appointments should have a start date and an end date.
  + Ability to stop or modify recurring appointments as needed also for backwards.
* **Automatic Conflict Handling**:
  + Automatically detect conflicts if a service or staff member or costumer is unavailable with notification to the user.

#### **6. Automated and Intelligent Scheduling**

* **Smart Scheduling Suggestions**:
  + Automatically suggest optimal appointment times based on:
    - Staff availability.
    - Customer preferences.
    - allowance
    - And service availability and rules
* **Predictive Analytics**:
  + Use predictive analytics to optimize resource allocation and anticipate service demand.

#### **7. Comprehensive Reporting and Analytics**

* **Report Generation**:
  + Generate detailed reports on various aspects of the system, including:
    - All appointments
    - Service usage (by customer, staff, location, etc.).
    - Staff performance (e.g., hours worked, services provided).
    - Appointment cancellations.
    - How many of the allocated hours is used by each costumer for each service
  + reports to monitor overall system performance and utilization.
* **Advanced Filtering and Sorting**:
  + Allow users to filter and sort data within reports by different criteria (e.g., by customer, by staff member, by service, by location).

#### **11. Data Import/Export Tools**

* **Data Management**:
  + Provide tools to easily import and export data, including:
    - Customer profiles.
    - Appointment records.
    - Service settings.
  + Support various formats (e.g., CSV, Excel) for data export and import.
* **Backup and Migration**:
  + Facilitate data backups and system migrations with minimal disruption.

#### **14. Predictive Analytics for Service Demand**

* **Demand Forecasting**:
  + Use predictive analytics to forecast service demand based on historical data.
  + Optimize scheduling and resource allocation to meet anticipated demand.

### **Comprehensive List of Rules for Appointment Scheduler System**

#### **1. No Double Booking**

* **Staff and Customer Protection**:
  + The system must prevent double bookings for both staff and customers within the same time slot.
  + Ensure that a customer or staff member cannot be scheduled for two different appointments at the same time, the system should not allow to have more participants in a appointment then the capacity set for the specific service
  + If a conflict arises, the system should notify immediately and not let schedule the appointment

#### **2. Recurring Appointments**

* **Weekly or monthly basis Recurrence**:
  + Users should have the flexibility to stop or modify recurring appointments at any time also for backwards so scheduling a recurring appointment should have the choice of setting it on a monthly or weekly basis and it should have a start date and end date for when it should run this appointments even for backwards and forward and it should still avoid conflicts.
* **Conflict Management**:
  + If a staff member or service becomes unavailable, the system should automatically detect conflicts with recurring appointments.
  + Automatically stop or cancel any conflicting recurring appointments and notify the user of these changes.

#### **3. Custom Booking Limits**

* **Service-Specific Rules**:
  + Each service should have customizable rules that differ for each customer.
  + Allow the user to define how many times a customer can book a particular service per week or month In a period of time with a from date and a to date and notifying the user when a allowance period is expiring
  + The system should enforce these rules and prevent customers from exceeding their allowed bookings.

#### **4. Staff Availability Management**

* **Schedule Management**:
  + Each staff member should have a defined schedule indicating when they are available and when they are not.
  + This schedule should be easily changeable by the user.
* **Automatic Appointment Cancellation**:
  + If a staff member becomes unavailable for a specific period, the system should automatically cancel all appointments that conflict with this unavailability.
  + Notify the user of which appointments were canceled and why.

#### **5. Group Session Management**

* **Capacity Control**:
  + For services that allow group sessions, enforce rules on the maximum number of customers that can attend a session.
  + Ensure that only one staff member is assigned to a group session, regardless of the number of customers attending.
* **Custom Group Size**:
  + Allow the user to define and adjust the maximum group size for each service.
  + Prevent overbooking of group sessions by adhering to the defined capacity limits.

#### **6. Conflict Detection and Resolution**

* **Real-Time Conflict Alerts**:
  + The system should detect conflicts in real-time, whether due to double bookings, staff unavailability, or overlapping services.
  + The system should not let scheduling a conflict
* **Automatic Conflict Handling**:
  + Automatically stop appointments that conflict with updated service or staff availability.

#### **7. Cancellations and Modifications**

* **Clear Reporting on Cancellations**:
  + The system should generate clear reports whenever an appointment is canceled,

#### **8. Customer Booking Permissions**

* **Centralized Booking Control**:
  + Only designated staff (e.g., a secretary or administrator) should have the authority to book, modify, or cancel appointments.
  + Customers should not have direct access to book or modify their own appointments, ensuring centralized control.

**9. Live booking page**

A live booking page with a Calander and clock with filled with color for booked time according to the selected staff availability, and then when selecting a costumer it should fill with color and narrow down to both availability and the same by service item

And it should only give the option to select a staff that's approved for this service

The order from selecting is first the costumer then the service then the staff then the date and time then the recurring option start date and end date

**Purpose** to get out the most service hours billed for each customer, (with limited staff), so the staff should be filled the most possible, but there should not be double booking (billing)

The customer's per service allowance and staff availability and each service time availability rules are constantly changing so when I change it in one place it should stop the appointments it conflicts and show what's being stopped

**Additional futures** need also to be able to sell the product, so it should be a subscription-based plan with the ability to buy multiple admin users (for multiple locations) and every user should the full private app access (so no user should share data with another user every user should have their own data)

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also some sort of bookkeeping system to confirm what we billed from the insurance/government programs and what we got paid already each item should have a price by the hour and have repots for bookkeeping per costumer per date or per staff by date or service by date a breakdown and totals

the recurring appointment should have a start date and an end date, and it should be able to change also for backwards because sometimes we get a notice late that a service was not able to be billed in the past so we should be able to revers it and put something else instead

Make roll-based users under each admin user so each staff can view their Calander cha change availability or missing dates

**A away form** where the admin or user can exclude a specific time and date of a staff or costumer was not available (because of a appointment outside the facility) and it should cancel the portion of the appointment for this time