Seun – Full Stack Developer Test Brief

Date: June 26, 2025

Project Title: Smart Desk Booking Assistant with AI

🖥️ Backend Task (Node.js + MongoDB)

Title: Add Smart Office Suggestion API using AI

Objective: Create a new /api/smart-suggest endpoint that uses AI or logic to suggest the best available office or meeting room based on:

- User history
- Booking duration
- Preferred time range
- Past cancellation frequency

Deliverables:

1. A POST API /api/smart-suggest that accepts:

```
{
  "userId": "user_id",
  "preferredTime": "2025-07-01T10:00:00",
  "durationHours": 2
}
```

2. Response includes:

```
{
  "recommendedOffice": {
    "officeId": "123",
    "officeName": "Private Office 3",
    "confidenceScore": 0.87
  }
}
```

3. Logic can be AI-powered using any basic ML library or rules-based logic (show thought process in comments).

4. Data must be pulled dynamically from MongoDB.

🌐 Frontend Task (Next.js + Tailwind CSS)

Title: AI Assistant Desk Booking UI

Objective: Create a dashboard screen where the user can:

- Enter preferred time & duration
- Click "Suggest Office"
- View the AI-recommended office + confidence score
- See a "Book Now" button to pre-fill booking form with that office

Design Requirements:

- Tailwind-based form and results section
- Use animation to reveal suggestion card
- Responsive layout with mobile-first styling

🔐 Bonus Task (Optional)

Add Token Auth Protection:
- Secure the smart-suggest API with JWT. Only authenticated users can access it.

✏️ Evaluation Criteria

Area	Weight
Backend API Quality	30%
AI or Rule Logic Clarity	20%
Frontend Design & UX	20%
API Integration (frontend)	15%
Code Documentation	10%
Bonus (JWT, testing)	5%

📦 Submission

- Deadline: 3 days
- Format: Upload updated ZIP or push to GitHub and share the link
- Include a brief README describing the logic for AI recommendation