# Matrica Tech Internship Assignment

Congratulations on being shortlisted for the **Matrica Tech Internship**. This assignment is designed to assess your ability to develop a full-stack application using AI tools efficiently.

You are required to complete and submit this assignment **within 1 day (24 hours)** from the time this email is sent. You are encouraged to use **AI tools** or any other online resources to complete the task quickly and effectively.

## Objective:
Build a mini full-stack application where the frontend form captures data, the backend stores it in a database, and the same data is used to fill a provided Word format (document template) and generate a downloadable PDF.

## Requirements:
- Frontend: Build a form using React (preferably Vite).
- Backend: Use Python (FastAPI / Flask / Django) - preferred or Node.js (Express).
- Database: Store the form data in any SQL database or MongoDB (More preferable).
- PDF Generation: Fill the provided Word template with form data and generate a downloadable PDF.

## Execution Flow (App Functionality):

Your application should follow this **end-to-end execution flow**:

1) **Frontend (Form Interface)**

   - Display a clean form with fields as per the provided Word template (e.g., Name, Email, Mobile, etc.).
   - Validate mandatory inputs (like name, email, mobile).
   - On clicking **Submit**, send the data to the backend via an API call.

2) **Backend (API + Database)**

   - Receive the form data from the frontend.
   - Store each form submission as a record in the database (SQLite/MySQL/PostgreSQL).
   - Use the stored data to fill the Word template dynamically.

3) **PDF Generation**

   - Once data is filled in the template, generate a properly formatted PDF.
   - Save the generated PDF file in the project directory (or a public folder).
   - Return a download link or file path to the frontend.

4) **Frontend (After Submission)**

   - On receiving the response from the backend, show a success message.
   - Display a button or link to **download/view the generated PDF**.

5) **(Optional Bonus)**

   - Maintain a list view showing all previous submissions with PDF links.
   - Provide basic deployment on a free platform (Render, Vercel, etc.).

**Deliverables:**

- Source code (GitHub link or ZIP file containing frontend and backend).
- A short screen recording (2–3 minutes) demonstrating the app's functionality — showing:

    1) Filling the frontend form.
    2) Submitting the data.
    3) Generating and downloading/viewing the PDF output.

- A brief note describing how you used AI tools or resources to complete the task.

**Evaluation Criteria:**

- End-to-end functionality and correctness of the solution.
- Effective use of AI tools to improve speed and efficiency.
- Code clarity, structure, and maintainability.
- User interface design and experience.

Once completed, please reply to this email with your submission. Ensure that your application runs smoothly end-to-end and the generated PDF matches the provided template format.

Best regards,
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