



# Internship Program



# Company Background

Syntecxhub is a forward-thinking company that bridges learning with practical experience. We provide internship projects across exciting fields like **Web Development, UI/UX Design, Frontend & Backend Development, Data Science**, and more, helping students gain real-world skills.

Our internships offer mentorship, hands-on tasks, and exposure to live projects, enabling students to enhance their knowledge, build confidence, and prepare for successful careers.



# ARTIFICIAL Intelligence





# Instructions

- Share your internship status on **LinkedIn** and mention **@Syntecxhub**.
- Upload your **entire source code** to **GitHub**, creating a repository named: **Syntecxhub\_Project\_Name**.
- You will receive **weekly tasks** that must be completed and submitted via the **Submission Form** within the given time.
- **you are required to complete at least one project.** Completing **multiple projects** is optional but **highly encouraged**, as it **demonstrates initiative and a deeper interest in learning**.



# Project - 1

## Maze Solver using A\* Search

- Represent a maze/grid (start, goal, walls) and model it as nodes.
- Implement A\* search with a heuristic (Manhattan or Euclidean).
- Return shortest path and handle unreachable cases.
- Optionally visualize the search & final path (console or simple plot).

 **Example :** **Link**



# Project - 2

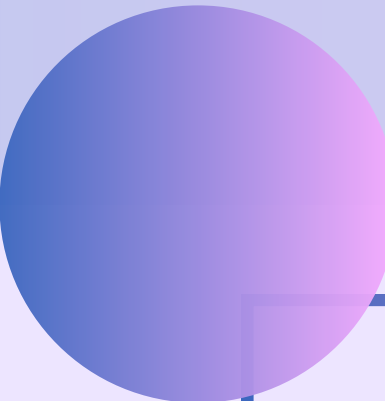
## Rule-Based Expert System

- Build a small rule engine (if-then rules) and facts base.
- Accept user facts (symptoms) and infer conclusions using forward chaining.
- Support chaining of rules (multi-step inference).
- Log inference steps so user can see the reasoning path.

 **Example :** **Link**



# Submission Details

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- Each task consists of **three projects**. Every intern is **required to complete and submit at least one project** from each task.

- Completing all assigned weekly tasks is **mandatory** to successfully finish the internship. If an intern fails to complete the required projects, the internship will be considered **incomplete**, and the **certificate will not be issued**.

- Please ensure that all completed projects are submitted through the official **Submission Form** to confirm your **successful participation in the internship program**.



# Thank You.

*Get In Touch With Us*



+91 63937 80295



info@syntecxhub.com



www.syntecxhub.com