

Automatic Timetable Generator

Prasad Jagtap¹, Arjun Bhosale¹, Shubham Rathod¹, Siddhesh Thakur¹, Ashwini Shirke²

Students, Department of Computer Engineering¹

Lecturer, Department of Computer Engineering²

Pimpri Chinchwad Polytechnic, Pune, India

Abstract: *Managing and generating timetables manually is a tedious and error-prone process, especially in educational institutions. Traditional methods often lead to conflicts, inefficient resource allocation, and time wastage. This paper proposes an Automatic Timetable Generator that leverages HTML, CSS, and JavaScript for the frontend and Python for backend algorithms to automate the scheduling process efficiently. The system integrates optimization algorithms to balance subject distribution, instructor availability, and room allocation while minimizing conflicts. This research highlights the significance of computational approaches in timetable generation, demonstrating how modern web technologies and backend processing can streamline scheduling workflows.*

Keywords: Timetable Generation, Web Development, Artificial Intelligence, Python, HTML, CSS, JavaScript, React JS