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(57) Abstract :

An automated vehicle parking system comprises of a real time slot integration module to provide live information about availability of slot via a GUI at a selected location, date, time, and parking level, a pre-booking module allows to reserve a parking slot based on the data from the real-time slot integration module, a navigation module generates a digital map guiding the user to the reserved parking slot, an automatic entry-exit module configured to scan a licensed number plate to verify a booking for seamless entry and exit of the vehicle, a slot management module to provide real time information about reserved parking slot, available parking slot and extended parking slots, a payment module to generate digital invoice and process payments securely via integrated digital payment gateways, a custom parking slot module configured to allocate and manage parking slots based on user category, vehicle specifications, and contextual requirements of the user.

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