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Heat Shield Hydrate

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Abstract: *In recent years, increasing global temperatures and heatwave occurrences have heightened the risk of heat-related illnesses such as dehydration and heatstroke. To address this, 'Heat Shield Hydrate' is an Android-based smart application designed to promote personal hydration awareness and heat safety management. The app integrates four main modules: Hydration Tracking, Heat Map Index, Emergency SOS, and Community Page. It calculates users' personalized water intake, monitors hydration progress, displays real-time heat risk levels, and enables emergency alerts during high-risk situations. Additionally, it fosters community engagement through information sharing and awareness posts. The system leverages Firebase as the backend, OpenWeatherMap API for heat index data, and Twilio API for SOS alerts, ensuring real-time response and scalability.*

Keywords: Hydration Tracking, Heat Index, Emergency SOS, Community Awareness, Android Application, Firebase, OpenWeatherMap API

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