

HTL Leoben	HTL Leoben Higher Federal Technical College of Industrial Engineering – Information technology and smart production	Diploma Exam
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DIPLOMA THESIS Documentation

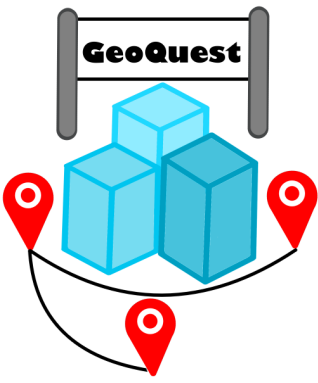
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Form, academic year	5BHWIN, 2025/26
Topic	GeoQuest – The Scavenger Hunt App
Co-operation partners	HTL Leoben

Assignment of tasks	At the end of each school year, HTL Leoben organizes a scavenger hunt for the first-year classes. Until now, an external app has been used for this purpose, which is only partially customizable and creates dependencies on third-party providers. The goal of this project is to develop an in-house application that is flexible, sustainable, and optimally adapted to the school's specific requirements.
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Realisation	The app will be developed using the Flutter framework and will run on Android and optionally iOS devices. Core features such as location tracking, task management, and progress visualization will be implemented with the geolocator and flutter_map plugins. Game logic, scoring, and the anti-cheating system will be handled locally, with an optional Firebase integration for data storage and future extensions. The development will proceed iteratively through prototypes, testing, and reviews to ensure stability and user-friendliness.
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Results	By the end of the project, a fully functional app will be delivered that enables a digital scavenger hunt based on GPS locations. Users can complete tasks on-site, collect points, and track their progress. All safety mechanisms—such as radius validation, speed monitoring, and time limits—will be implemented. In addition, a complete project documentation, test reports, and a final presentation will provide a transparent overview of the development process and technical outcomes.
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Illustrative graph, photo (incl. explanation)	 <p>- App Logo</p>
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Participation in competitions Awards	No Competitions
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Accessibility of the Diploma Thesis	In the future in library
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Approval (Date / Signature)	Examiner	Head of College
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