

Course Title	Empowering Android
Term	4
Inholland Faculty	Engineering, Design and Computing
Language of instruction	English
Cycle	First cycle/undergraduate/Bachelor level
Inholland Location	Diemen
Code Subjects	To be determined
Number of ECTS	15
Content subjects	<p>Android Application Development</p> <p>In this module you will learn how to create a mobile application for the Android platform.</p> <p>Topics covered are:</p> <ul style="list-style-type: none"> • Architecture of the Android Operating System • Designing Android applications • Creating screens using Activities and Fragments • Running background tasks and services • Storing simple data locally on the mobile device • Communicating over a network • Incorporating location services <p>Java Backend Technology</p> <p>In this module you will learn how to configure an application server such as JBoss and create an application running in it which will provide services over a network.</p> <p>Topics covered are:</p> <ul style="list-style-type: none"> • Applications servers and how to configure one • Creating servlets running in the application server • Simplifying servlet development with Java Beans and Java Server Pages based templates • Connecting a relational database to the application with Hibernate

	<ul style="list-style-type: none"> • Offering access to the application in the form of a network service • Setting up security in your application <p>Capstone project</p> <p>This module integrates the other two in a life-like project. During the last three weeks of the minor students work in small projects creating a complete architecture with a backend and a mobile application accessing it. The projects are done for and with partners in the work field or based on situations from the work field.</p>
Lecturer(s)	To be decided
Learning outcomes	<p>After completing the minor the student is able to:</p> <ul style="list-style-type: none"> • Install and configure an application server • Create and run a Java-based backend application • Design and implement an Android mobile application • Connect an Android application to a backend server
Mode of delivery, planned activities and teaching methods	<p>This minor runs for 10 weeks from April 30, 2022 to June 30, 2022.</p> <p>This minor consists of three major parts, two of which are offered during the first seven weeks, the last one starting during the term and being finished during the last three weeks.</p> <p>Contact hours: 4 days (maximum) per week at school</p>
Prerequisites and co-requisites (if applicable)	<p>The minor is open for 3rd and 4th year bachelor students. The following skills are required:</p> <ul style="list-style-type: none"> • Java programming • Multi-threaded programming • Structured Query Language • Database Management Systems
Recommended or required reading and/or other learning resources/tools	To be determined
Assessment methods and criteria	<p>The whole minor is graded by the capstone project. Students are required to all work on both parts of the architecture and keep a strict documentation of who did what in the form of JavaDoc annotations and UML designs. Finally they hand in the designs, code of both</p>

	<p>applications, setup scripts and the generated Java documentation. Based on this the minor is finalized by an assessment.</p>
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