

**1. TITLE OF THE PROFESSION**

5 0613 12 03 Szoftverfejlesztő és -tesztelő technikus

2. TRANSLATED TITLE OF THE PROFESSIONSoftware development and testing technician
(THIS TRANSLATION HAS NO LEGAL STATUS)**3. PROFILE OF SKILLS AND COMPETENCES**

- select the most appropriate techniques, procedures and methods for his/her software development tasks;
- set up web pages with standard and responsive web design, using style sheets, and configure search engine optimisation parameters;
- write codes in the JavaScript programming language that ensure the dynamic behaviour of simple websites;
- develop one of the components of the RESTful application, the client-server architecture in the JavaScript language;
- develop database management and console or graphical user interface (GUI) desktop applications using high-level programming language (C#, Java);
- design and set up relational databases for data management applications and create multi-table queries;
- develop client-side applications for mobile devices as part of stand-alone or complex software systems;
- develop client-side (frontend) applications that run in a web environment, using a JavaScript framework;
- develop the server-side (backend) component of the RESTful application, also serving database management purposes, using a suitable language or framework;
- configure network devices, connect devices to the network and configure network security to create a working environment for software development and testing, ensure secure web communication in the developed software, using HTTPS protocol;
- be open to the application of new technologies and continuously improve his/her knowledge;
- communicate effectively in technical topics in both Hungarian and English;
- carry out independently the assigned tasks working in a team and use development and version control tools to support teamwork.

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE**(*) Explanatory notes:**

¹ In the original language. | ² The translation of the designation is provided for information purposes only. | ³ Fill it out if necessary. The certificate supplement provides additional information on the qualification but have no legal value in itself. The format of the description is in conformity with Decision (EU) 2018/646 of the European Parliament and of the Council of 18 April 2018 on a common framework for the provision of better services for skills and qualifications (Europass) and repealing Decision No 2241/2004/EC.

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5. OFFICIAL BASIS OF THE CERTIFICATE

<p>Name and status of the authority issuing the certificate</p>	<p>Name and status of the national/regional authority providing accreditation/recognition of the certificate</p> <p>Ministry for Innovation and Technology</p>				
<p>Level of the certificate (national or international)</p> <p>NQF level: 5</p> <p>EQF level: 5</p> <p>Digital Competence Framework level: 8</p>	<p>Grading scale / Pass requirements</p> <p>Five -grade: 5 excellent 4 good 3 satisfactory 2 pass 1 fail</p> <p>The prerequisite of being eligible to sit for a sectoral basic examination is the successful completion of all the required training courses, or the recognised prior learning should incorporate the requirements of the sectoral basic examination. The prerequisite of being eligible to sit for a vocational examination is the successful completion of all the training courses and the uninterrupted professional practice required. In case the student is required to pass a sectoral basic examination, latter shall be recognised with the following weighting: The result of the basic sectoral examination will be computed into that of the vocational examination with the following weighting: Sectoral basic examination: 10%, Vocational examination: 90%</p>				
<p>Certificate number: CXK A</p> <p>Serial number: 123456</p> <p>Certificate issue date: 2023.12.07</p>	<p>Designation of the theoretical and practical subjects of the sectoral basic examination and the vocational examination and their grades according to a five-grade scale</p> <p>Sectoral basic examination : The examination was passed based on recognised prior learning</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Result of the vocational examination in percentage</td> <td style="width: 20%; text-align: center;">100%</td> </tr> <tr> <td>Result of the vocational examination with grades</td> <td style="text-align: center;">5</td> </tr> </table>	Result of the vocational examination in percentage	100%	Result of the vocational examination with grades	5
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<p>Access to next level of education/training</p> <p>To higher education</p>	<p>International agreements</p>				
<p>Other information concerning the vocational training process</p>					
<p>Legal basis</p> <p>Government Decree 12/2020 (II. 7.) on the Implementation of the Vocational Education and Training Act, Government Decree 319/2020 (VII. 1.) on the amendment of Government Decree 12/2020 (II. 7.) on the Implementation of the Vocational Education and Training Act, Act LXXX of 2019 on Vocational Education and Training.</p>					

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE SUPPLEMENT

Description of the sectoral basic training and the theoretical and practical vocational training	Distribution of the total number of hours of the programme																																																																				
Total duration of the education/training	2054 hours																																																																				
<p>Entry requirements:</p> <ul style="list-style-type: none"> - Elementary school qualification <p>Further information:</p> <table border="0"> <thead> <tr> <th>VOCATIONAL PRACTICAL SUBJECT</th> <th>HOURS</th> </tr> </thead> <tbody> <tr><td>Basics of information technology and telecommunications I</td><td>12 hour</td></tr> <tr><td>Basics of information technology and telecommunications II</td><td>12 hour</td></tr> <tr><td>Basics of computer programming</td><td>12 hour</td></tr> <tr><td>ICT project work I</td><td>12 hour</td></tr> <tr><td>ICT project work II</td><td>12 hour</td></tr> <tr><td>Development of desktop applications</td><td>12 hour</td></tr> <tr><td>Database management I</td><td>12 hour</td></tr> <tr><td>Database management II</td><td>12 hour</td></tr> <tr><td>Development and testing of desktop and mobile applications</td><td>12 hour</td></tr> <tr><td>Software testing</td><td>12 hour</td></tr> <tr><td>Web programming</td><td>12 hour</td></tr> <tr><td>Frontend programming and testing</td><td>12 hour</td></tr> <tr><td>Backend programming and testing</td><td>12 hour</td></tr> <tr><td colspan="2"> </td></tr> <tr> <th>VOCATIONAL THEORETICAL SUBJECT</th> <th>HOURS</th> </tr> <tr><td>Vocational knowledge</td><td>12 hour</td></tr> <tr><td>Vocational foreign language knowledge</td><td>12 hour</td></tr> <tr><td>Basics of information technology and telecommunications I</td><td>12 hour</td></tr> <tr><td>Basics of information technology and telecommunications II</td><td>12 hour</td></tr> <tr><td>Basics of computer programming</td><td>12 hour</td></tr> <tr><td>ICT project work I</td><td>12 hour</td></tr> <tr><td>ICT project work II</td><td>12 hour</td></tr> <tr><td>Development of desktop applications</td><td>12 hour</td></tr> <tr><td>Database management I</td><td>12 hour</td></tr> <tr><td>Database management II</td><td>12 hour</td></tr> <tr><td>Development and testing of desktop and mobile applications</td><td>12 hour</td></tr> <tr><td>Software testing</td><td>12 hour</td></tr> <tr><td>Web programming</td><td>12 hour</td></tr> <tr><td>Frontend programming and testing</td><td>12 hour</td></tr> <tr><td>Backend programming and testing</td><td>12 hour</td></tr> <tr><td>Vocational English language knowledge</td><td>12 hour</td></tr> <tr><td>Continuous field practice</td><td>160 hour</td></tr> <tr><td>Altogether</td><td>508 hour</td></tr> </tbody> </table> <p>Link to the Training and Outcome Requirements and the Programme Plans: https://ikk.hu The present diploma supplement was elaborated in compliance with Government Decree 12/2020 (II. 7.) on the implementation of the Act on Vocational Education and Training.</p> <p>National Reference Point: National Office of Vocational Education and Training and Adult Learning: https://nrk.nive.hu</p>		VOCATIONAL PRACTICAL SUBJECT	HOURS	Basics of information technology and telecommunications I	12 hour	Basics of information technology and telecommunications II	12 hour	Basics of computer programming	12 hour	ICT project work I	12 hour	ICT project work II	12 hour	Development of desktop applications	12 hour	Database management I	12 hour	Database management II	12 hour	Development and testing of desktop and mobile applications	12 hour	Software testing	12 hour	Web programming	12 hour	Frontend programming and testing	12 hour	Backend programming and testing	12 hour			VOCATIONAL THEORETICAL SUBJECT	HOURS	Vocational knowledge	12 hour	Vocational foreign language knowledge	12 hour	Basics of information technology and telecommunications I	12 hour	Basics of information technology and telecommunications II	12 hour	Basics of computer programming	12 hour	ICT project work I	12 hour	ICT project work II	12 hour	Development of desktop applications	12 hour	Database management I	12 hour	Database management II	12 hour	Development and testing of desktop and mobile applications	12 hour	Software testing	12 hour	Web programming	12 hour	Frontend programming and testing	12 hour	Backend programming and testing	12 hour	Vocational English language knowledge	12 hour	Continuous field practice	160 hour	Altogether	508 hour
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Head of Examination Organiser:
Issue date: 2023.12.07

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