

Development of Internet Applications

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To pass this course you need to obtain a credit and pass the exam.

	min	max
Project A	5	10
Project B	5	20
Test	5	10
Credit	21	40
Exam	30	60

The Credit

Every student has to develop 2 projects during the semester. One will cover the complex domain of website design and creation. The second one will be the creation of a web application using modern HTML 5 technologies, etc. Projects can also be implemented with respect to projects from other courses (in this case, the consultation with teacher is necessary). In addition, the simple writing test will be performed during the semester (second half of the semester, particular date will be specified)



Each student has to present his/her solution personally. The dates listed below should be followed. Project A specifications need to be consulted by the end of November.

Specific solutions of individual projects, their scope and technology are on the student; however, the projects must meet the specified requirements. The evaluation will be performed personally with respect to understanding of submitted project and its implementation. The scope and feasibility of the projects will be one of the assessment criteria.

Project A - it is a project that is defined by the student. Project has to be presented on the practices during the week from 2.12.2024. Detailed specification has to be consulted and short specification has to be send by the end of October personally during the lessons.

The implementation of the projects requires:

- Processing of JSON or XML data dynamically retrieved from the external source on the web using various available APIs (Facebook, Google, Twitter, etc.)
- Processing of data inputted by the user using forms (validation, data calculation, filtration, etc.)
- Work with third party components (Maps, Charts, etc.)

Typical examples could be an interactive weather map with search, dashboard with IoT data or some OpenData interface (e.g. <https://data.world/datasets/free>).

It is possible to use basic styling frameworks, such as Bootstrap, as well as client-side dynamic content libraries (jQuery including appropriate third-party libraries, unless stated otherwise – only components for fundamental features are allowed).

The resulting pages will be evaluated from the source code and visual point of view (HTML, styling, scripting). The web presentation need to be able to launch directly from local drive (it will not be PHP or ASP.NET server projects, etc.)

Project B – complex HTML 5 web presentation. At the beginning, the student selects a graphic design – realworld existing web page (Apple, Tesla, etc.). Based on selected design (as an inspiration and source of images and textes) the whole web presentation will be developed (styling, functional logic, etc.). The project will be delivered/evaluated in two phases.

Phase 1	HTML web pages with styling and basic structure according to selected web site	week from 4.11.2024
Phase 2	Complex web presentation contains all required elements and features	Week from 2.12.2024

The design and layout of the final presentation will be based on the real world website agreed with the tutor to the end of the October.

Graphic elements (photos, icons, etc.) has to be used with respect to authorship (the author and source need to be located within the footer, as well as information that presentation is educational student`s project).

Followed elements and features have to be a part of solution:

- Multi-column layout of web page content
- Main menu included min. one level of submenu
- Slider of the content or images
- Contact form with validation (min. HTML 5 with styling)

- Photo gallery with dynamic preview of photos (zoom of photos)
- Counter/Countdown (for numbers or date) – own component based on JavaScript implementation
- Responsive behavior of presentation
- Another elements that fulfill the demands of defined layout or content of the presentation

The website has to include at least 1 main page and 3 subpages with different content. The resulting pages must match as much as possible from the graphic design chosen by the student. The content of the presentation is up to each student; however, it should be related to selected source web presentation (the content can be copied from a mentioned source).

It is possible to use basic styling frameworks, such as Bootstrap, as well as client-side dynamic content libraries (jQuery including appropriate third-party libraries, unless stated otherwise – only components for fundamental features are allowed).

The resulting pages will be evaluated from the source code and visual point of view (HTML, styling, scripting). The web presentation need to be able to launch directly from local drive (it will not be PHP or ASP.NET server projects, etc.)

The Exam

The final exam will be in written form, where the maximum possible profit is 60 points. A student who receives 29 points or fewer must repeat the exam (if the study rules allow it to him / her). The dates for the exam will be published in the Edison Information System.