EuroSkills Test Project

Web Development 17

Module A

INTRODUCTION

The proposed test project aims to provide a comprehensive challenge in web development by covering six distinct modules. Each module focuses on different aspects of web design and development, ranging from static website design to advanced techniques and collaboration. This project aims to challenge competitors with a well-rounded skill set that encompasses both front-end and back-end development, as well as integration with external services through APIs.

DESCRIPTION OF PROJECT AND TASKS

The Test Project will consist of 6 modules with the following topics:

- Module **A**: Static Website Design (HTML/CSS)
- Module **B**: Dynamic website with server-side rendering
- Module **C**: Commercial Open API
- Module **D**: Interactive Frontend using an API
- Module **E**: Advanced Web Development
- Module **F**: Collaborative Challenge

Module A will be further described in this document.

Module A – Static Website Design

In this module, you are expected to develop a static website for a client using HTML and CSS only. The website must consist of four different pages which will be explained in detail in the following sections.

Within the media files, the client provided some media, icons, and text. You are free to use them or create custom assets on your own.

As the website will be publicly available, it is important to the client that the website conforms to accessibility standards (WCAG) and implements SEO best practices.

The website must be responsive and support at least the following viewports:

- Mobile: 360x640

- Tablet: 768x1024

- Desktop: 1920x1080

No server-side or client-side framework is allowed for module A. CSS preprocessors may be used. All HTML and CSS code must pass the W3C validations, even generated one.

Competitor Information

Module A will be assessed using Google Chrome and Firefox.

The axe browser extension is installed in Google Chrome and allows competitors to validate the website according to the accessibility standards WCAG.

Website Requirements

The goal of the website is to promote a suite of AI driven APIs. Potential customers must be able to inform themselves about the possibilities of those APIs, the pricing, and the team behind this product.

You can add more information and elements to all pages as you see fit. It's also possible to add links that point towards pages that do not exist yet (for example to a login page).

For each page, some example text and more are provided in the media files. However, not all the provided material has to be used.

The following pages must be implemented:

- **Home Page**
  A short but catching home page. The idea is to show the product with some simple information and engaging media. It must contain links to the product and pricing pages where interested visitors can find more information.

- **Product Page**
  The product page shows the whole AI API suite, by listing all available APIs and their features.

- **Pricing Page**
  On the pricing page, the pricing of the APIs must be explained.

- **Team Page**
  As the client is also looking to grow their team, a dedicated team page must show the current employees and highlight some core values of the company.

Global Elements

The following elements must be available on all pages:

- **Header**: must at least include a product name in form of text or a logo

- **Navigation**: contains easily accessible links to all pages

- **Footer**: includes at least a copyright notice

All elements can be enriched with more information where it makes sense.

EQUIPMENT, MACHINERY, INSTALLATIONS AND MATERIALS REQUIRED

It is expected that all Test Projects can be done by competitors based on the equipment and materials specified in the Infrastructure Lists*.

MATERIALS, EQUIPMENT AND TOOLS SUPPLIED BY COMPETITORS IN THEIR TOOLBOX

Competitors may bring the following items:

- Mouse with mousepad

- A maximum of one USB keyboard in the Competitors desired language.
  Note: If the keyboard brought by the Competitor does not work then a standard keyboard will be provided by the Competition Organizer

- Language file for Microsoft OS or Ubuntu Linux to make the keyboard work correctly

- Headset and extension cable

Any device brought in by the Competitor may not have any internal memory storage. Assigned Experts and Workshop Manager have the right to disallow certain equipment brought by Competitors. Backup equipment is allowed in case of failure but should always be kept inside the Competitors locker.

MATERIALS & EQUIPMENT AND TOOLS PROHIBITED IN THE SKILL AREA

The Skill area is the area outside the experts' room within the Workshop Area.

- Extra software

- Mobile phones

- Tablet devices

- Smart watches

- Photography/Video devices

- USB Drives

- Any device brought into the workshop may not have any internal memory storage devices

The Chief Expert, Deputy Chief Expert and Workshop Manager have the right to disallow equipment brought by Competitors.

MARKING SCHEME

ID	Description	Day 1	Day 2	Day 3
A	Static Website Design	17.00		
A1	Website Layout	2.00		
A2	Website Design	8.50		
A3	Standards	3.75		
A4	Organization	2.75		
B	Dynamic website with server-side rendering	23.00		
B1	Database design	2.00		
B2	Website design	5.00		
B3	Authentication	2.00		
B4	Workspaces	2.50		
B5	API Tokens	3.25		
B6	Billing Quota	2.50		
B7	Bills	3.25		
B8	Organization	2.50		
C	Commercial Open API		17.00	
C1	Deliverables		1.00	
C2	Authentication		1.75	
C3	Quotas		1.00	
C4	Error Handling		0.50	
C5	Chat		5.25	
C6	Image Generation		5.00	
C7	Image Recognition		2.50	
D	Interactive Frontend using an API		22.00	
D1	Frontend design		5.00	
D2	Home Page		0.25	
D3	ChatterBlast Page		4.50	
D4	DreamWeaver Page		5.75	
D5	MindReader Page		4.00	
D6	Error Handling		1.00	
D7	Authentication		0.50	
D8	Routing		1.00	
E	Advanced Web Development			16.00
E1	Task 1 – Writing automated tests			6.00
E2	Task 2 – Creating a progressive web app			4.50
E3	Task 3 – Creating web components – Limited Textarea			1.75
E4	Task 3 – Creating web components – Confirmation Modal			1.50
E5	Task 3 – Creating web components – Count Down			1.25
F	Fun: Collaborative Challenge			5.00
F1	Productive teamwork			1.00
F2	Presentation			2.00
F3	Implementation			2.00