

WorldSkills Juniors

TEST PROJECT

Web Technologies



CONTENTS

CONTENTS	2
INTRODUCTION TO TEST PROJECT	3
DESCRIPTION OF PROJECT AND TASKS	4
<i>Module A</i>	4
<i>Module B</i>	4
<i>Module C</i>	5
<i>Module D</i>	7
<i>Module E</i>	8

INTRODUCTION TO TEST PROJECT

The following is a list of sections or information that must be included in all Test Project proposals that are submitted to WorldSkills.

- Contents including list of all documents, drawings and photographs that make up the Test Project
- Introduction/overview
- Short description of project and tasks
- Instructions to the Competitor
- Equipment, machinery, installations and materials required to complete the Test Project
- Marking scheme (incl. assessment criteria)
- Other

DESCRIPTION OF PROJECT AND TASKS

MODULE A

Web Design

Competitors will have 2 hours to complete module A

The data provided: images and company description

Introduction

A new organization called "HelpEcology" requires design for its new website. HelpEcology will help internet users donate money to help finance various environmental projects.

Instead of looking for large investors to invest in environmental projects, this site will offer to invest any amount of money to anyone who wants to, so little by little you can collect the necessary amount of funds. The target audience of this site is young people who care about the environment and who are willing to spend money for the sake of their future.

Description of project and tasks

Your task is to create a website design and logo for the organization "HelpEcology".

You are provided with media data that will help you in drawing the design. It is not necessary to use all the media data.

Module A includes the design of a website page and a logo for HelpEcology.

- Logo design for HelpEcology, which will reflect the corporate identity of the organization
 - The logo should be used as part of your design as part of the site concept.
 - The logo should represent the organization and the essence of the site.
 - Your logo should include both the text "HelpEcology" and at least one additional graphic element.
- The page includes the following elements:
 - Your logo for "HelpEcology"
 - Link or button to project registration page
 - Authorization (Fields for entering username and password, login button)
 - Listing of at least three projects for funding, each of which includes:
 - Picture
 - Donation button
 - Title
 - Description

MODULE B

Layout

Competitors will have 2 hours to complete module B

The data provided: 3 psd files

Introduction

The designer created the concept of a web page for a fictional site. The design automatically adapts the width of the site to different browser resolutions.

Your task is to create a layout using only HTML and CSS.

Description of project and tasks

You are provided with 3 PSD files: desktop.psd, tablet.psd and mobile.psd.

A prerequisite is to open / close the menu on the mobile version, using only CSS.

Your template should:

- automatically adapt to the width of the demo window depending on the user's device and browser size
- comply with HTML5 requirements
- rebuild from desktop version to tablet with screen resolution less than 800px
- An element (for example, a button) is created using HTML elements and CSS (not a picture).
- match the provided layouts
- smoothly rearrange when the screen narrows
- changing the resolution does not create horizontal scrollbars
- the alignment of blocks of text matches the pattern and is done using CSS.
- any interactive effect when hovering over menu items on all templates
- any interactive effect when you hover on the buttons on all templates.

Necessary conditions for the code:

- HTML and CSS code must be valid (w3c).
- CSS should be well structured.

MODULE C

Client-Side Development

Competitors will have 4 hours to complete module C

The data provided: HTML-template

Introduction

All teens love games. That is why we suggest you create your own game in the image of one old game that you most likely have not played.

This task is divided into 2 parts for 2 hours. Each of the parts will be evaluated separately, so try to finish on time.

In the first part you will need to apply your skills in design and layout, and in the second part you need to know JavaScript.

Description of project and tasks

You need to develop a game called Shakhtar. The hero of this game is a man who works underground and extracts crystals. He had not only crystals, but also dangerous stones.

Part 1. Before lunch

In the first part you need to develop the design and layout of the following screens:

- Welcome screen
- Playing field screen
- Rating screen

The following items should appear on the welcome screen:

- Logo
- Name of the game
- Game Description

- The field to enter the player's name
- "Start" button

On the screen with the playing field should be the following elements:

- Username - entered player name
- Time - the time elapsed since the beginning of the game in the format mm: ss
- Crystals - Number of crystals collected
- Player - a character controlled by the user.
- Earth - blocks with land, on which a player can move
- Tunnel - empty blocks for which the player has already passed
- A crystal is a crystal that a player must collect
- Stone - an element through which the player cannot pass

The rating screen should include a table with a rating of the top 10 players and a "Start over" button. The table should have the following columns: position, player name, time. The table must be sorted by time.

Save your design files on the server to the folder with the current module in the design folder with the following names:

- screen_welcome.png
- screen_game.png
- screen_rating.png

Part 1. After lunch

In the second part, you need to implement the game logic described below.

1. When you open the game page in the browser, a welcome screen appears in front of the user.
2. The button on the welcome screen must not be active until the user enters his nickname in the field.
3. After clicking on the "Start" button, the welcome screen should change to the screen of the playing field.
4. The name entered by the player must be displayed on the screen.
5. The time elapsed from the start of the game should begin to increase.
6. The value of the collected crystals must initially be zero.
7. The player appears in the upper left corner of the game area.
8. The player can move around the playing field using the WSAD keys.
9. The player cannot go beyond the playing field.
10. Blocks with the ground through which the player has passed must be replaced with empty blocks.
11. When a player passes under a "stone" or "crystal" element, this element begins to fall down the empty blocks in one second.
12. If the stone falls on the player, the player lost.
13. The player cannot pass through the stone.
14. If a player collects a crystal, the value of the collected crystals is increased by 1 unit.
15. If the player has collected all the crystals, the player won.
16. After winning, the player's result must go to the server (results.php file) by POST with a request indicating the player's name and the time it took the player to collect all the crystals.
17. After sending the result to the server, the game screen should change to a rated screen.
18. The rating table must be sorted on the client side.
19. When you click on the "Start over" button, the game should start over, and the time and collected crystals should be 0.

Instruction:

You can use the provided media files, as well as create your own.

You can use the jQuery library if you see fit.

Part 1 and Part 2 will be evaluated separately.

To save the results to the server, you will be given the results.php file, which will save the results to your database and return the results.

In the results.php file, you must change the value of the username and password variables. The rest of the code is prohibited to change.

MODULE D

Server-Side Development

Competitors will have 2 hours to complete module D

The data provided: HTML-template

Introduction

The customer has provided you with a customized responsive blog template. Your task will be to implement all the functionality of this blog.

Description of project and tasks

You are given 5 HTML pages:

- index.html
- Home page of the site. Contains: a block with popular posts, a block with a rating of users, a list of recent posts with pagination.
- single.html
- A page with a post. Contains: post itself, block comments.
- user.html
- Page with user entries
- add.html
- Add Record Page
- blocked.html
- The page that is displayed if the user is blocked.

Guest features:

- login and password authentication
- check in
- view posts
- tick "I like"

Blogger functionality:

- possibility of ending the session
- adding new posts
- adding comments to posts
- tick "I like"

Admin features:

The administrator owns all the functionality of a blogger, plus he can delete and edit posts, block and unblock users.

Feature Descriptions:

- Authorization

Authorization occurs by login and password. If the login and password are not valid, then the user is not authorized, and the corresponding message is displayed.

- Registration

When registering the user specifies: username, password and photo. None of the fields should be empty, otherwise the corresponding message is displayed.

- Add post

The post contains: title, subtitle, creation date (should be set automatically on the server), announcement, post text and image (PNG or JPG). All fields are required, the corresponding message should be displayed when sending empty fields. The post should be attached to the user who added it.

- Conclusion posts on the main

The main page should display the latest posts added to the blog with a pagination of 3 per page. The post must contain title, subtitle, date (in the format [day of month year]), image, announcement, login and user's avatar.

- Like

Like any user can put 1 time. Use browser cookies for this limitation.

- User rating display

User rating is determined by the sum of likes from all his posts. The more likes, the higher the user in the ranking. The main page should display the first 5 users in the rating.

- The conclusion of the post

The following fields should be displayed on the page with the post: title, subtitle, date (in the format [day month name year]), image, post content, login and user avatar.

- Comments to posts

Comments to the post can leave only authorized users. If you send an empty comment, it is not added. In the output of comments, the text of the comment, the avatar and the login of the user who left the comment are displayed.

- Lock user

If the administrator has blocked the user, then when you try to enter the site, the contents of the page blocked.html are displayed. Also, user posts are not displayed anywhere and the user is not displayed in the rating. But links to user posts are active. When you unlock the user, everything falls into place.

- Deleting and editing posts

Administrator can delete and edit posts. When you delete a post, the likes and likes posts of the user changes accordingly.

Instruction:

- Site template should not change.
- An administrator account must be created with the login "admin" and the password "admin".
- You should not use PHP frameworks.

MODULE E

Team Challenge

Competitors will have 2 hours to complete module E

The data provided: images and company description

Description of project and tasks

- Immediately at the championship, experts will come up with a task that participants will have to perform together as a team.
- The way participants communicate with each other in the team will be evaluated.