

EKPAIDEYTIKO LOGISMIKO - Manual of Application Analysis and Design

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Authors drafting perspectives should provide an abstract of no more than 250 words in a single paragraph. Abstracts should explain to the general reader the major contributions of the article. References in the abstract must be cited in full within the abstract itself and cited in the text.

Keyword 1 | Keyword 2 | Keyword 3 | ...

Welcome to Education Pro 2

Guide to using Education Pro 2

Purpose of the Manual: This manual aims to provide a detailed analysis and design guide for the application related to the educational material of a course focusing on Ancient Olympia.

Overview of the Application: The application provides information about Ancient Olympia and includes features for user login, new user creation, and contact information. Students must solve some quiz for each chapter of the course. According to their grades , we may suggest a different learning method.

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Format. The website consists of seven pages, each serving a distinct function.

1. Home Page
2. User Login Page
3. User Registration Page
4. About Ancient Olympia Page
5. Course Material Page
6. Personalized Education Page

Page Descriptions and Designs . Home Page The entry point of the application providing an overview and navigation options. It includes our logo, a navigation menu. Also , there is a brief overview of the app in the main section. In the main section there also are some links to the log in and registration page and last but not least the home page includes a footer , where the user can find details of the authors and contact info. **Log In Page** Allows existing users to log in to their accounts. The header includes our logo and a navigation menu. The main section of the page contains a log in form , that accesses our database. After the user is logged in , he's redirected to the About Ancient Olympia Page .

About Ancient Olympia Page Provides detailed information about Ancient Olympia. Again, the header includes our logo and a navigation menu. This page ,was created to briefly inform the user about the course he chose to attend. It contains a mini description of each chapter of the course , a link to the course material page

and then comes the footer where there is contact info and details about the authors. **Course Material Page** The same header is used here as it is used in the previous pages. The page contains the educational material for the course. It has everything the students needs to learn about Ancient Olympia. The Course is divided in 5 chapters. Each of the chapters contain one quiz as an external link and a form so the student can post his grade to the database. After the student completes a quiz his grade is displayed and he is asked to place it in the form. When the first three quiz are completed the average grade of the student is checked and if it is bigger than 6 he is redirected to the Personalized Education Page. If not, he can continue completing the last two quiz. **Personalized Education Page** In this page nothing changes from the course material one. The only difference is that instead of the three quiz that are already completed by the student , there are two questions for him to answer. After answering these two questions he has again the two final quiz.

Design. The website is designed with a modern and user-friendly interface, utilizing CSS to enhance both functionality and aesthetics. Below is a breakdown of the design elements and their implementation across different sections of the site . **Global Reset:** Ensures consistency with margin and padding set to 0, using a sans-serif font throughout.

Banner Section.

- Background:** Utilizes a full-screen background image with a gradient overlay (linear-gradient) for a visually appealing effect.
- Responsive Design:** background-size: cover; ensures the background image scales appropriately across different screen sizes.
- Fixed Background:** background-attachment: fixed; keeps the background image stationary while users scroll.

Navigation Bar

- Layout:** Center-aligned navigation bar with space evenly distributed between elements.
- Logo:** Positioned on the left side with a clickable cursor:pointer;.
- Menu Items:** Styled as inline blocks for horizontal alignment, with a smooth transition effect for hover states.

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Please declare any competing interests here.

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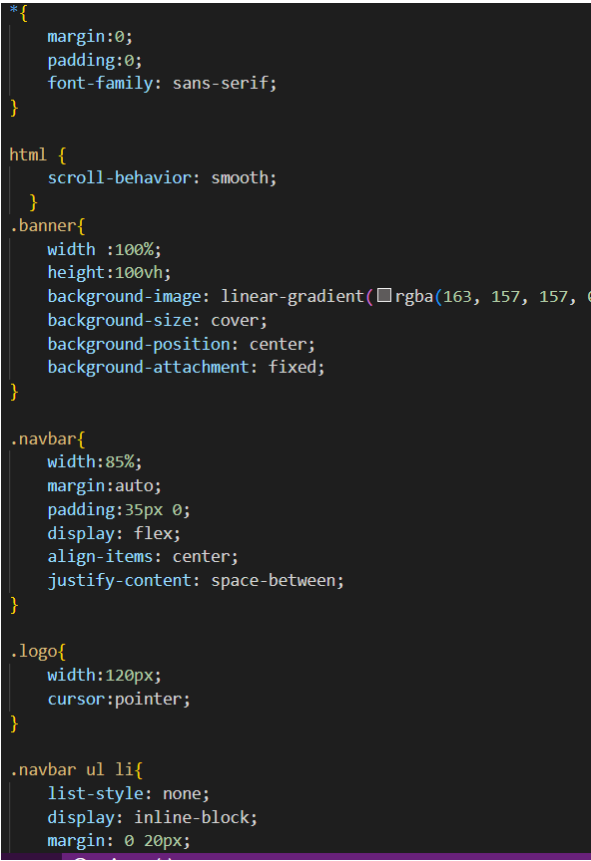


Fig. 1. Placeholder image of a frog with a long example legend to show justification setting.

- **Hover Effect:** Underline animation on menu items highlights the selected item.

Main Content Section

- **Positioning:** Centered vertically within the banner.
- **Typography:** Large header (h1) with a significant font size for impact.
- **Textual Content:** Paragraphs (p) are styled for readability

Call to Action Buttons

- **Button Style:** Rounded corners , bold text , and distinct hover effects for interactivity.
- **Transition Effect:** Smooth width expansion on hover emphasizing user interaction.

Toggle Section

- **Background:** Utilizes a fixed background image with a gradient overlay for contrast and readability.
- **Typography:** Large header (h2) with a clear font style .
- **Form Styling:** Input fields (input) and submit button (submit) are styled with rounded corners and a consistent font size.

Footer Section

- **Background:** Dark background with a contrasting text color.
- **Layout:** Center-aligned content with a distinct top border for separation.
- **Navigation Links:** Styled as inline blocks for horizontal alignment, maintaining consistency with the navigation bar.

The design ensures a cohesive user experience with attention to detail in typography, layout, and interactive elements. By employing CSS effectively, the website achieves both aesthetic appeal and functional usability across its various sections.

This scripts effectively manages user authentication, updates user grades, calculates averages, and redirects based on conditions, all while ensuring proper error handling and database security practices. Adjustments may be necessary based on specific application requirements and security considerations.

Session Management:

- Starts the session to maintain user login state across pages.
- Redirects to log in page if the user is not logged in.

Database Connection:

Connects to a MySQL database using mysqli.

Updating Quiz Grade

- Retrieves the grade value, converts it to integer, and then to float .
- Prepares and executes an SQL UPDATE statement to set quiz3 for the logged-in user.

Querying Quiz Grades

249	• Prepares and executes an SQL SELECT statement to fetch	311
250	quiz1 and quiz2 grades for the logged-in user.	312
251		313
252	• Binds and fetches the results into variables .	314
253	Updating Average Grade	315
254		316
255	• Checks if mo is NULL for the user using a SELECT statement.	317
256		318
257	• If mo is NULL, updates mo directly with the new gradeMO value.	319
258		320
259	• If mo is not NULL, calculates the average of quiz1, quiz2,	321
260	and quiz3, and updates mo using the COALESCE function to	322
261	handle NULL values.	323
262	Redirecting Based on Average Grade	324
263		325
264	• Executes a SELECT query to fetch the updated mo value.	326
265		327
266	• Checks if the calculated average exceeds 6. If true, redirects	328
267	the user to personalised education page.	329
268	Error Handling and Debugging:	330
269		331
270	• Handles errors for prepared statements to ensure robust error	332
271	reporting.	333
272		334
273	• Outputs error messages and details for debugging purposes.	335
274	Finalization and Redirection	336
275		337
276	• Prints success or error messages based on query execution.	338
277		339
278	• Redirects the user to material course page after completing	340
279	database operations using .	341
280	Closing Statements and Database Connection: Closes all	342
281	prepared statements and terminates the database connection.	343
282	In conclusion, the students are informed that they must post the	344
283	correct grade they got , inside the form. If they put another grade ,	345
284	the tutors are able to see this and correct it back.	346
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