

Assignment #4. Responsive Web Design (Media Queries + Bootstrap Grid)

Student: Write your full name

Group: Write your group

Objective:

The goal of this assignment is to learn how to create responsive web pages using CSS Media Queries and the Bootstrap Grid system. By the end, students will be able to design layouts that automatically adjust to different screen sizes (mobile, tablet, desktop) and efficiently use Bootstrap's 12-column grid.

Rules for Submission:

1. The assignment must be completed individually. If you have the same paperwork with other students, you will have 0 to this work.
2. The assignment must be submitted by the deadline which is specified in the lms.astanait.edu.kz. Works submitted after the deadline will not be accepted! To receive a grade, you must submit by deadline and defend your work at practice lesson time.
3. SUBMIT REPORT(DOC FILE) AND YOUR PROJECT FOLDER IN ZIP FORMAT. Ensure that the project runs without errors.

IN REPORT SHOULD BE:

- YOUR NAME, GROUP
- **All parts with screens(write part, task and then add screen)**
- Summary of your work process

Part 1. Media Queries

Task 0. Responsive Typography

- o Create a simple webpage with headings and paragraphs.
- o Use media queries to change font sizes for mobile, tablet, and desktop.

Example: small font on mobile, medium on tablet, larger on desktop.

Task 1. Responsive Layout with Media Queries

- o Create a webpage with three boxes in a row.
- o On desktop: display all three side by side.
- o On tablet: display two boxes in a row.
- o On mobile: display boxes stacked vertically.
- o Use only CSS media queries (no Bootstrap).

Part 2. Bootstrap Grid System

Task 2. Bootstrap Responsive Columns

- Build a responsive layout using Bootstrap's **12-column grid**.
- Create three columns:
 - o On **desktop**: each column takes 4 columns (3 equal parts).
 - o On **tablet**: two columns on the first row and one on the second row.
 - o On **mobile**: all columns stacked.

Task 3. Bootstrap Navigation Bar

- Create a responsive navigation bar using Bootstrap components.
- It should include: a logo on the left, links on the right, and collapse into a hamburger menu on smaller screens.

Part 3. Combined Project

Task 4. Responsive Portfolio Page

- Create a **portfolio page** using both Media Queries and Bootstrap Grid.
- Requirements:
 1. **Header** with a Bootstrap navbar.
 2. **Main section** divided into two parts:
 - Left side: portfolio projects (use Bootstrap grid to arrange cards).
 - Right side: sidebar with personal info and contact details.
 3. **Footer** across the bottom.
- Apply **custom media queries** to adjust font sizes, spacing, and element visibility for mobile, tablet, and desktop.
- Ensure that the page looks clean and usable across different screen sizes.

Evaluation Criteria (100%)

1. **Media Queries (10%)**
 - o correct breakpoints, responsive font sizes
2. **Responsive Layout (10%)**
 - o proper stacking and alignment with media queries
3. **Bootstrap Grid (10%)**
 - o correct use of the 12-column grid system
4. **Bootstrap Navbar (10%)**
 - o responsive, collapsible navigation bar
5. **Responsive Portfolio Page (10%)**
 - o effective combination of media queries + Bootstrap grid
6. **Design & Code Quality (10%)**
 - o clean, readable, structured code; consistent style
7. **Defense during Practice Lesson (30%)**
 - o Student explains assignment clearly
 - o Demonstrates understanding of responsive design
 - o Answers instructor's questions correctly
 - o Completes the given task from the instructor correctly
8. **Report (10%)**
 - o well-structured report with all screenshots and summary

Resources:

1. Abitova G.A. Web technologies Front-End Development. Part 1 (2022);
2. <https://www.youtube.com/playlist?list=PLPT6CF0r4E3rkvy1rLUKdDHfHmWZeURW>
3. <https://getbootstrap.com/docs/5.3/getting-started/introduction/>
4. https://www.w3schools.com/css/css_rwd_mediaqueries.asp
5. https://developer.mozilla.org/en-US/docs/Learn_web_development/Core/CSS_layout/Responsive_Design

*****Questions will be based on the provided resources***