Urdu Newspaper Code Explanation

روزنامہ جنگ - Technical Documentation

A Complete Guide to the HTML/CSS Implementation

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1. Project Overview

This Urdu newspaper project is a replica of a vintage Pakistani newspaper, specifically modeled after روزنامہ جنگ (Jang Daily). The implementation uses pure HTML5 and CSS3 with no external JavaScript dependencies.

Key Features

• **Single HTML file** - Completely self-contained with embedded images
• **RTL Support** - Full right-to-left text direction for Urdu script
• **Responsive Grid** - 6-row layout system using Flexbox
• **Vintage Aesthetics** - Black and white color scheme with period-accurate typography

2. HTML Document Structure

The HTML document follows a semantic structure optimized for Urdu content rendering.

DOCTYPE and HTML Tag

```
<!DOCTYPE html>

<html lang="ur" dir="rtl">
```

Explanation:
- `lang="ur"` - Declares the document language as Urdu
- `dir="rtl"` - Sets text direction to right-to-left for proper Urdu rendering

Head Section

```
<head> <meta charset="UTF-8"/> <title>روزنامہ جنگ ۱۶ فروری ۲۰۲۶</title> <link
href="https://fonts.googleapis.com/css2?... </head>
```

Key Components:
- **UTF-8 encoding** - Essential for Urdu character support
- **Google Fonts** - Loads Noto Nastaliq Urdu font
- **Embedded CSS** - All styles defined inline for portability

3. CSS Styling Explained

Global Reset

```
* { margin:0; padding:0; box-sizing:border-box; }
```

This universal selector resets all default browser spacing and applies the border-box model, ensuring consistent sizing across all elements.

Body Styling

```
body {   background: #555;   font-family: 'Noto Nastaliq Urdu', serif;
direction: rtl; }
```

Properties Explained:
- `background: #555` - Dark gray background frames the white newspaper
- `font-family` - Noto Nastaliq Urdu is optimized for Urdu script
- `direction: rtl` - Ensures all text flows right-to-left

4. Layout System

The newspaper uses a sophisticated grid system built with CSS Flexbox. The layout consists of 6 main rows, each with different column configurations.

Page Container

```
.page {   width: 700px;   margin: 10px auto;   background: #ffffff;   border:
2px solid #000; }
```

Design Decisions:
- **Fixed width (700px)** - Ensures consistent layout across devices
- **Centered with auto margins** - Centers the newspaper on the page
- **White background** - Simulates printed paper
- **Black border** - Defines the newspaper edge

Row 1: Header with Logo

```
display: flex; flex-direction: row; border-bottom: 2px solid #000; min-
height: 95px; direction: ltr;
```

This row contains 4 news columns on the left and the black JANG logo on the right. The `direction: ltr` override is used here to position the logo on the right side in the visual layout.

5. Typography & Fonts

Content Text Class

```
.c {   font-size: 7px;   line-height: 1.32;   font-family: 'Noto Nastaliq
Urdu', serif;   color: #000;   text-align: justify;   padding: 1px 2px;
word-spacing: -1px;   overflow: hidden; }
```

Typography Breakdown:

- `font-size: 7px` - Extremely small to mimic dense newspaper columns
- `line-height: 1.32` - Tight leading for compact text blocks
- `text-align: justify` - Creates clean column edges
- `word-spacing: -1px` - Reduces gaps between Urdu words

Column Headers

```
.ch {   font-weight: bold;   font-size: 7px;   text-align: center;   border-
bottom: 1px solid #000;   padding-bottom: 1px;   margin-bottom: 1px; }
```

Column headers are bold, centered, and underlined to distinguish section titles from body text.

6. Image Implementation

Images are embedded using base64 encoding, making the HTML file completely self-contained with no external dependencies.

Base64 Encoding Explained

Base64 encoding converts binary image data into ASCII text that can be embedded directly in HTML. This eliminates the need for separate image files.

Image Tag Structure

```
<img src="data:image/jpeg;base64,/9j/4AAQ..."      style="width:100%;
height:60px;              object-fit:cover;            border:1px solid #000;
filter:grayscale(100%)                   contrast(1.4)
brightness(0.82);"       alt=""/>
```

Image Styling Properties:

- `width: 100%` - Fills container width
- `height: 60px` - Fixed height for consistency
- `object-fit: cover` - Crops image to fill space
- `filter: grayscale(100%)` - Converts to black and white
- `contrast(1.4)` - Increases contrast for newsprint effect
- `brightness(0.82)` - Slightly darkens for vintage look

7. Code Breakdown by Section

Row 1: Top Header Section

This row establishes the newspaper's identity with four news columns and the prominent JANG logo.

News Columns Container

```
<div style="flex:1; display:flex;              direction:rtl;
border-right:2px solid #000;">
```

`flex:1` makes this container grow to fill available space, while `display:flex` allows the four columns inside to sit side by side.

Individual News Column

```
<div class="c" style="flex:1;                          border-left:1px solid
#000;">   <div class="ch">قومی خبریں</div>   <div style="margin-bottom:3px;">
<img src="data:image/jpeg;base64,..."/>     <div style="font-size:5px;
text-align:center;               font-style:italic;
margin:1px 0;">کلاس روم میں تعلیم</div>   </div>   نے وزیراعظم نے اسلام آباد—...
</div>
```

Each column uses `flex:1` to share space equally. The structure includes a header (`.ch`), optional image, and news text.

Row 2: Main Headline Section

```
<div style="flex:1;                display:flex;            align-items:center;
justify-content:center;          border-top:3px solid #000;
border-bottom:3px solid #000;           margin:2px 0;
direction:rtl;          padding:3px 6px;           background:#ffffff;">
<div style="font-size:28px;               font-weight:900;
color:#000;            line-height:1.2;                  font-family:'Noto
Nastaliq Urdu',serif;            letter-spacing:-0.5px;
text-align:right;             width:100%;                word-wrap:break-
word;">       ڈیجیٹل تعلیم کا آغاز - طلباء کو مفت ٹیبلٹس کی تقسیم       </div>
</div>
```

Headline Styling:
- font-size: 28px - Large and prominent
- font-weight: 900 - Extra bold for emphasis
- word-wrap: break-word - Prevents text overflow
- border-top/bottom: 3px - Thick borders frame the headline

8. Customization Guide

Changing Text Content

To modify article text:

1. Locate the section you want to edit
 2. Find text between > and <
 3. Replace with your Urdu content
 4. Save and refresh browser

Adding New Images

To add or replace images:

1. Convert your JPEG to base64:

```
base64 -w 0 myimage.jpg > encoded.txt
```

2. Copy the base64 string
 3. Replace existing base64 in src attribute
 4. Update image caption if needed

9. Best Practices

Performance Considerations

- **Image Size** - Keep base64 images under 15KB for fast loading
- **Font Loading** - Google Fonts loads asynchronously
- **CSS Inline** - Reduces HTTP requests

Accessibility

- Add `alt` text to images for screen readers
- Use semantic HTML where possible
- Maintain good color contrast

Browser Testing

Test in multiple browsers to ensure:
- Urdu fonts render correctly
- RTL direction works properly
- Images display without errors
- Layout remains intact

Conclusion

This Urdu newspaper project demonstrates advanced HTML/CSS techniques including:

✓ Complex grid layouts with Flexbox
✓ RTL text direction handling
✓ Base64 image embedding
✓ Vintage newspaper aesthetics
✓ Urdu typography implementation
✓ Self-contained HTML documents

The code is well-structured, maintainable, and serves as an excellent reference for building similar vintage newspaper layouts or Urdu web content.

End of Documentation