

## HTML5 Forms - Detailed Explanation

HTML5 forms help in collecting user inputs efficiently. Let's break down the form elements used in your code and understand their functionality.

### 1. <!DOCTYPE html>

This declaration defines the document as an HTML5 document.

```
<!DOCTYPE html>
```

It ensures that the browser correctly interprets HTML5 features.

### 2. <html lang="en">

The <html> tag represents the root of an HTML document. The lang attribute specifies the language of the document, which helps search engines and accessibility tools.

```
<html lang="en">
```

### 3. <head> Section

Contains metadata and links to styles or scripts.

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
<title>ABOUT-FORMS IN HTML5</title>
```

```
</head>
```

- <meta charset="UTF-8"> ensures support for various character encodings.
- <meta name="viewport" content="width=device-width, initial-scale=1.0"> makes the page responsive.
- <title> defines the title of the webpage.

### 4. <body> Section

Contains the visible content of the webpage.

```
<body>
```

```
<h1>FORM TO APPLY FOR SOFTWARE DEVELOPMENT ENGINEER AT PAP_CORPORATION</h1>
```

- <h1> is the heading tag, used for the main title.

### 5. Username Input Field

```
<div>
```

```
<label for="username">Enter your Username</label>
```

```
<input id="username" type="text" placeholder="Enter Your Username">
```

```
</div>
```

- `<label for="username">` is used for accessibility and associates the label with the input field.
- `<input id="username" type="text">` creates a text field for user input.
- `placeholder="Enter Your Username"` gives a hint inside the input field.

## 6. Radio Buttons (Gender Selection)

```
<div>

<label for="male">male</label>

<input type="radio" id="male" name="gender">

<label for="female">female</label>

<input type="radio" id="female" name="gender">

</div>
```

- `<input type="radio">` creates a radio button.
- `name="gender"` ensures that only one option is selected at a time.
- `<label>` improves accessibility.

### Issue in Original Code:

- Each radio button must have the same name attribute to work correctly as a group.

## 7. Textarea (Multiline Input Field)

```
<div>

<label for="comment">Enter your comments:</label>

<textarea name="comment" id="comment" rows="4" cols="50"></textarea>

</div>
```

- `<textarea>` allows users to enter multiple lines of text.
- `rows="4"` and `cols="50"` define the visible size of the textarea.
- `<label for="comment">` provides a proper label.

### Issue in Original Code:

- row and column should be rows and cols.

## 8. Dropdown (Select Field)

```
<div>

<label for="fruits">Select a fruit:</label>

<select name="fruits" id="fruits">

  <option value="banana">Banana</option>

  <option value="apple">Apple</option>
```

```
<option value="pineapple">Pineapple</option>
<option value="orange">Orange</option>
<option value="cherry">Cherry</option>
</select>
</div>
```

- `<select>` creates a dropdown list.
- `<option>` defines each selectable item.
- `value="banana"` represents the internal value sent when the option is selected.
- `<label for="fruits">` makes it accessible.

### 9. Issues in the Original Code

- `<input>` is a self-closing tag, so `</input>` is incorrect.
- Missing name attributes for radio buttons.
- Incorrect attributes (row and column instead of rows and cols).

### 10. Additional Improvements

You can add a submit button:

```
<div>
  <button type="submit">Submit Application</button>
</div>
```

- `<button type="submit">` submits the form data.

### Conclusion

- Labels enhance accessibility.
- name attributes are essential for grouping inputs.
- Use proper attributes (rows, cols, name, etc.).
- input, textarea, and select help collect user data efficiently.

This structured guide will help you in future references while working with HTML forms!