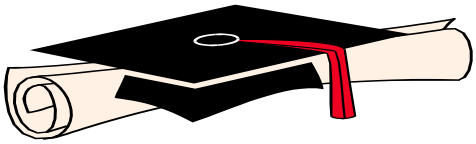
Json

Semester: 2	**The Exam Code:** 04
Duration: 90 minutes	**Total Marks:** 20



Practical Examination Paper

Do not write on this question paper and return it to the Invigilator after the examination.

JSON Exam: Sports Data Management System

Total Points: 20
Duration: 90 minutes

Question 1: Transform XML Sports Data to HTML Using XSLT (10 Points)

Objective:

Write an XSLT stylesheet to transform XML data representing sports events into an HTML table.

XML Data Example:

```
<sports>
    <title>Upcoming Sports Events</title>
    <caption>Latest Scheduled Matches</caption>
    <description>Find information about the latest sports events,
including teams, venues, and schedules.</description>
    <events>
        <event>
            <id>101</id>
            <name>Champions League Final</name>
            <sport>Soccer</sport>
            <date>2024-06-01</date>
            <venue>Wembley Stadium</venue>
            <status>Scheduled</status>
        </event>
        <event>
            <id>102</id>
            <name>NBA Finals Game 5</name>
            <sport>Basketball</sport>
            <date>2024-06-15</date>
            <venue>Staples Center</venue>
            <status>Completed</status>
        </event>
        <event>
```

```
            <id>103</id>
            <name>US Open Tennis Final</name>
            <sport>Tennis</sport>
            <date>2024-09-10</date>
            <venue>Arthur Ashe Stadium</venue>
            <status>Scheduled</status>
        </event>
    </events>
</sports>
```

Tasks and Scoring:

Create the XML Data File: Ensure the XML file is well-structured and properly formatted. **[1 Point]**
Write XSLT to Generate HTML: Create an XSLT file to transform the XML data into a styled HTML table. **[2 Points]**
Display Metadata: Use the XSLT file to display the title, caption, and description above the event table. **[2 Points]**
Render Event Table: Generate a table from the `<events>` element with columns:

- Event ID
- Name
- Sport
- Date
- Venue
- Status
  [3 Points]
  Add Conditional Styling:
- Highlight rows based on event status:
  - **Green background** for "Scheduled".
  - **Gray background** for "Completed".
    [2 Points]

Question 2: JSON Sports Data Rendering with Interactivity (10 Points)

Objective:

Use JSON data to dynamically render sports events and add interactivity using HTML, CSS, and JavaScript.

JSON Data Example:

```
{
    "events": [
        {
            "id": 201,
            "name": "Super Bowl LVIII",
            "sport": "American Football",
            "date": "2024-02-11",
            "venue": "Allegiant Stadium",
            "status": "Scheduled"
        },
        {
            "id": 202,
            "name": "Wimbledon Men's Final",
            "sport": "Tennis",
            "date": "2024-07-14",
            "venue": "Centre Court",
            "status": "Completed"
        },
        {
            "id": 203,
            "name": "F1 Grand Prix - Monaco",
            "sport": "Formula 1",
            "date": "2024-05-26",
            "venue": "Monaco Circuit",
            "status": "Scheduled"
        }
    ]
}
```

Tasks and Scoring:

Create the JSON File: Ensure the JSON file is valid and formatted correctly. **[1 Point]**
Render Event Table: Use JavaScript to dynamically display the events in a table format with columns:

- Event ID

- Name
- Sport
- Date
- Venue
- Status
  [3 Points]
  Implement Sorting: Add a **"Sort by Date"** button that toggles between ascending and descending order. **[3 Points]**
  Filter Events by Status: Add a dropdown to filter events based on status ("All", "Scheduled", "Completed"). **[3 Points]**

Additional Requirements:

Responsive Styling: Use **CSS Grid or Flexbox** to ensure the table is responsive across various screen sizes. **[2 Points]**
Highlight Past Events: If an event's date is **before today's date**, add a **badge** next to the event labeled **"Past Event"**. **[3 Points]**

Submission Instructions:

Submit the following files in a **zipped folder** named:

`WebExam_Sports_<YourName>.zip`

`index.html`
`style.css`
`script.js`
`events.json`
`sports_data.xml`
`sports_data.xslt`

Ensure your project is tested and functional in a local web environment (e.g., **Live Server, XAMPP, WAMP**).

This **Sports Management System** covers **XML & XSLT transformation, JSON data handling, dynamic table generation, sorting, filtering, and responsive UI design** using **HTML, CSS, and JavaScript**.