

(1) Project Title
Sports News Aggregator System (SPORTS CENTRAL)
(2) Project Proponent
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(3) Program/Project Proponent's Department/College/Office
DCPET, Institute Technology, PUP- MANILA





(8) Significance

Project Background:

Sports News Aggregator System was created to provide sports fans with a consolidated platform where they can obtain the most recent news from different sports disciplines, leagues, and teams. In order to provide sports fans with a consolidated platform where they can obtain the most recent news from different sports disciplines, leagues, and teams, the Sports News Aggregator System was created. In this age of information overload, sports fans frequently find it difficult to stay up to date because sports news is dispersed among multiple websites and media outlets. With the help of a simple interface and a collection of news from several reliable sources, this technology seeks to speed up the procedure. The site aims to improve sports fans' global sports consumption experience by offering timely and relevant news.

By providing a consistent and all-encompassing perspective of the sports world, this centralized approach not only saves users time but also improves their experience. Through the utilization of contemporary online technologies, programming interfaces for applications, and data processing methods, the Sports News Aggregator System will guarantee prompt and precise updates, meeting the varied needs of sports enthusiasts worldwide.

The project's ultimate objective is to provide a user-friendly platform that provides top-notch, timely, and relevant sports news, enhancing users' interactions with their preferred sports.

(9) Objectives





Centralize sports news: Their primary aim might be to offer a one-stop shop for sports fans, providing them with easy access to news articles, analyses, and insights from a variety of reliable sources across different sports. This saves users time and effort from searching for news on individual sports websites.

Provide diverse sports coverage: They might aim to cover a wide range of sports, catering to fans with different interests. This could include everything from major leagues like basketball and football to niche sports like badminton or curling.

Offer a curated experience: Sports Central might filter and select news stories to deliver the most relevant and interesting content to their audience. This could involve editorial decisions on the types of stories they choose or personalization based on user preferences.

Increase user engagement: Their goal could be to keep users coming back for more by offering a variety of content formats like news articles, videos, podcasts, or interactive features.

Monetize their platform: As a news aggregator, Sports Central might generate revenue through advertising or by offering premium features like ad-free browsing or exclusive content.

(10) Expected Output

We focus on in-depth articles and multimedia content that goes beyond the surface level. Our website dissects the stories that matter, offering unique analysis and perspectives you won't get from just skimming headlines. We house a massive database of sports information, including player stats, historical data, game records, and even past articles we've published. In the future, we might leverage the database to personalize your experience. Imagine seeing articles tailored to your favorite teams or athletes, based on what you've interacted with on the site.

(11) Target Beneficiaries

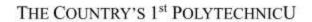
The Sports News Aggregator System is to provide support to various stakeholders in the sports industry. The primary beneficiaries of this platform are the following groups:

- Sports Enthusiasts
- Sports Journalists and Analysts
- Advertisers and Marketers
- Betting Companies and Bettors

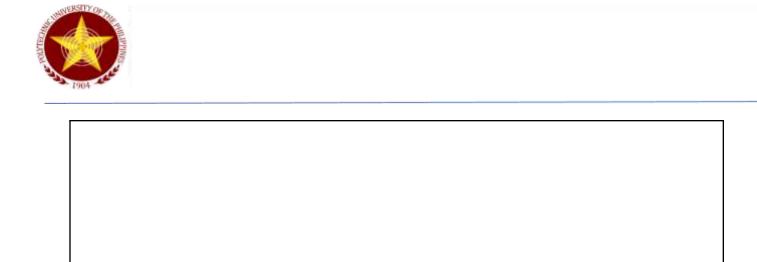


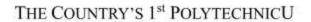


(12) Methodology	





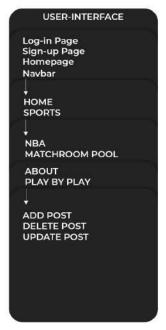




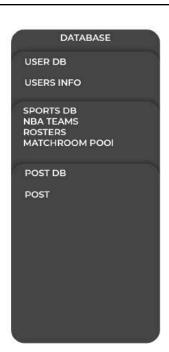




SYSTEM ARCHITECTURE





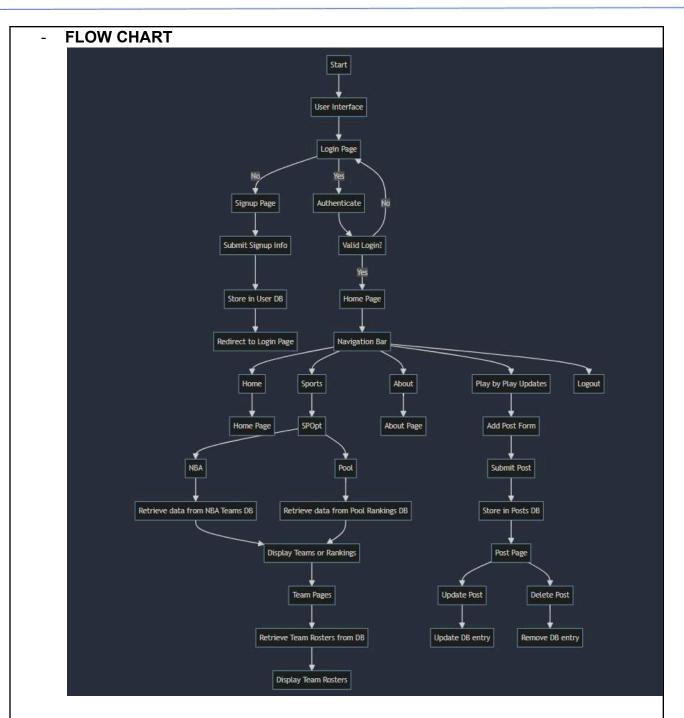


Description:

- 1. User Interface Layer:
 - Log-In Page: Allows users to log in.
 - Sign-Up Page: Allows users to create an account.
 - Homepage: Displays after successful log-in, includes a navbar.
 - Navbar: Includes Home, Sports (with NBA and Matchroom Pool options), About, and Play-by-Play Updates (with Add Post form).
- 2. Application Logic Layer:
 - Authentication Controller: Manages log-in and sign-up processes.
 - Routing Controller: Directs users to the appropriate pages based on their actions.
 - Post Controller: Manages adding, deleting, and updating posts.
- 3. Database Layer:
 - User Database: Stores user information.
 - Sports Database: Stores NBA teams, rosters, and Matchroom Pool rankings.
 - Posts Database: Stores posts created by users.

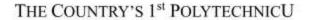






Process Flowchart

The steps a user takes in an application are represented by a flowchart. The process is portrayed step-by-step, demonstrating how one action alters the next.







Numerous possible courses of action are shown in the flowchart, depending upon user input and system conditions. For example, a user can access various areas such as Home, Sports, About, or Play by Play Updates after logging in.

Processes/Actions:

- "Login Page"
- "Authenticate"
- "Submit Signup Info"
- "Store in User DB"
- "Display Team Rosters"

Decision Points:

- "Does user have an account?"
- "Valid Login?"

Paths:

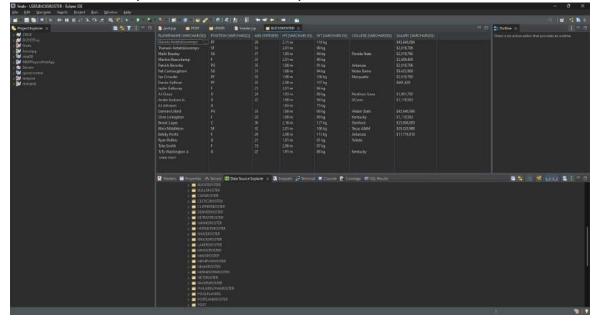
- Yes/No branches from decision points leading to different actions or further decisions.
- Navigation paths from "Home Page" to other sections like Sports, About, and Play by Play Updates.



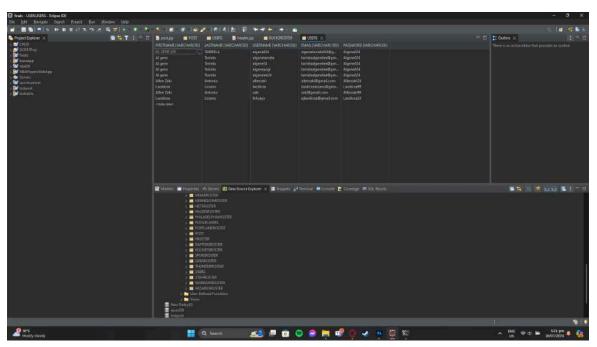




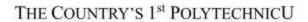
- SCREENSHOTS (DATABASE AND GUI)



NBA TEAM DATABASE SAMPLE

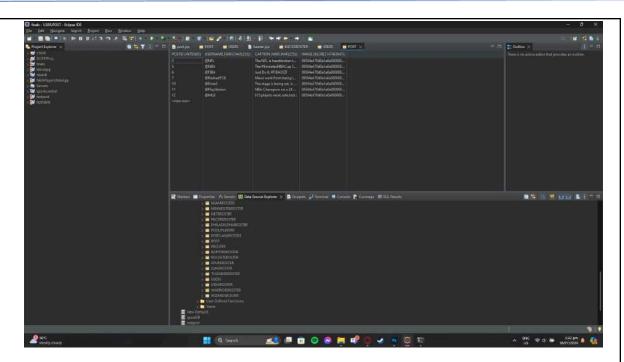


USER DATABASE

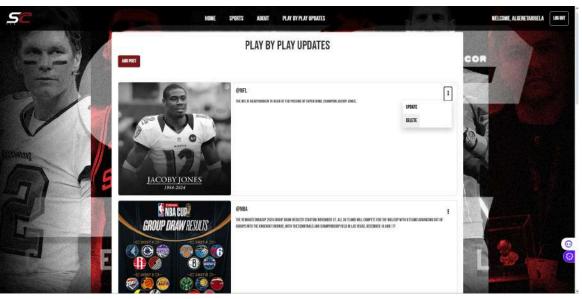






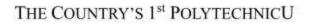


POST DATABASE



CRUD SAMPLE

- CODE W/ COMMENT SPController.java







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Imports: Imports necessary classes from the jakarta.servlet package for handling servlet functionalities.

Servlet Definition: Defines a servlet SPController using the @WebServlet annotation with the URL pattern /UserServlet.

Instance Variables:

- serialVersionUID: A unique identifier for the servlet versioning.
- userDao: An instance of SPDao, presumably handling data access operations related to users.

Constructor: Initializes the userDao object when the servlet is instantiated.

doPost Method (Overrides HttpServlet's doPost method):

- Retrieves the action parameter from the HTTP request to determine the operation (register or login).
- Calls methods from userDao (registerUser or loginUser) based on the action parameter.
- If the action is neither "register" nor "login", it sends a "Bad Request" response with HTTP status code 400.





SPDao.java

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Descriptions (1990)

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SPDao Class Overview:

1. Database Connection Setup:

- Defines constants for database URL, username, and password (DB_URL, DB_USER, DB_PASSWORD).
- Uses Class.forName to load the JDBC driver (org.apache.derby.jdbc.ClientDriver) in the constructor.

2. registerUser Method:

- Retrieves user registration data (firstname, lastname, username, email, password) from the HttpServletRequest.
- Establishes a database connection using DriverManager.getConnection.
- o Executes an INSERT SQL query to insert user data into the USERS table.
- Handles SQLIntegrityConstraintViolationException specifically for duplicate username errors by setting an error message attribute and forwarding the request to login.jsp.
- Catches SQLException for general database errors and prints stack trace or sends an internal server error response.

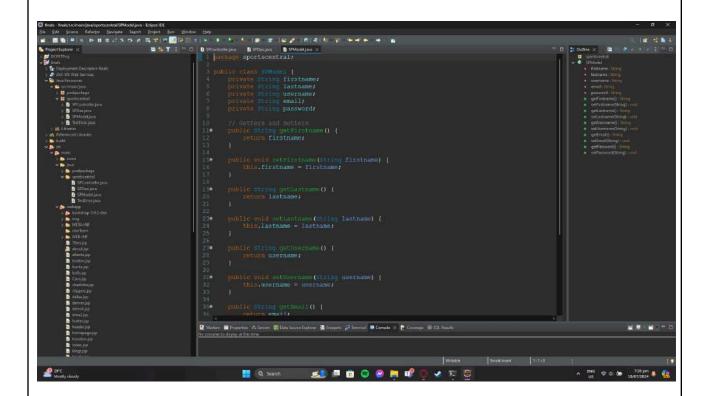
3. loginUser Method:

- o Retrieves login credentials (username and password) from the HttpServletRequest.
- Establishes a database connection.





- Executes a SELECT SQL query to verify the username and password.
- If a matching record is found in the ResultSet, sets the username in the session and redirects to homepage.jsp.
- If no matching record is found, sets an error message attribute and forwards the request to login.jsp.
- Catches SQLException for database errors during login and handles them similarly to the registerUser method.



SPModel Class Overview:

1. Instance Variables:

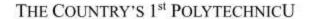
 firstname, lastname, username, email, password: Private instance variables to store user information.

2. Getters and Setters:

 Provides public accessor methods (get and set methods) for each instance variable, allowing other classes to retrieve and modify these values.



CERTIFICATE NUMBER: SCP000413Q





1. Annotations and Imports:

- Uses @MultipartConfig to handle multipart/form-data requests, which are used for file uploads.
- Imports necessary classes from the Servlet API (jakarta.servlet.*).

2. Servlet Class Definition:

Extends HttpServlet and defines a servlet mapped to /CaptionPostServlet.

3. doPost Method:

- Overrides the doPost method to handle HTTP POST requests.
- o Retrieves form data (username and caption) and the uploaded file (image).
- Converts the uploaded file (Part) to an InputStream.

4. JDBC Operations:

- Loads the Derby JDBC driver (org.apache.derby.jdbc.ClientDriver).
- Establishes a connection to the Derby database (jdbc:derby://localhost:1527/register;create=true).

5. SQL Insertion:

- Defines an SQL query to insert username, caption, and image into a POST table.
- Uses a PreparedStatement to set parameters (username, caption, image) and execute the insertion.





6. Exception Handling:

 Catches ClassNotFoundException (for JDBC driver loading), SQLException (for database operations), and IOException (for file handling).

7. Redirection:

After successful database insertion, redirects to post.jsp.

This servlet assumes you have:

- A Derby database (register) running locally.
- A POST table with columns username (VARCHAR), caption (VARCHAR), and image (BLOB or similar type).

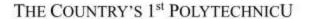
This servlet provides basic functionality to delete posts. Depending on your application's requirements, you might want to add further validation, error handling, or security measures like authentication and authorization before allowing deletion operations.





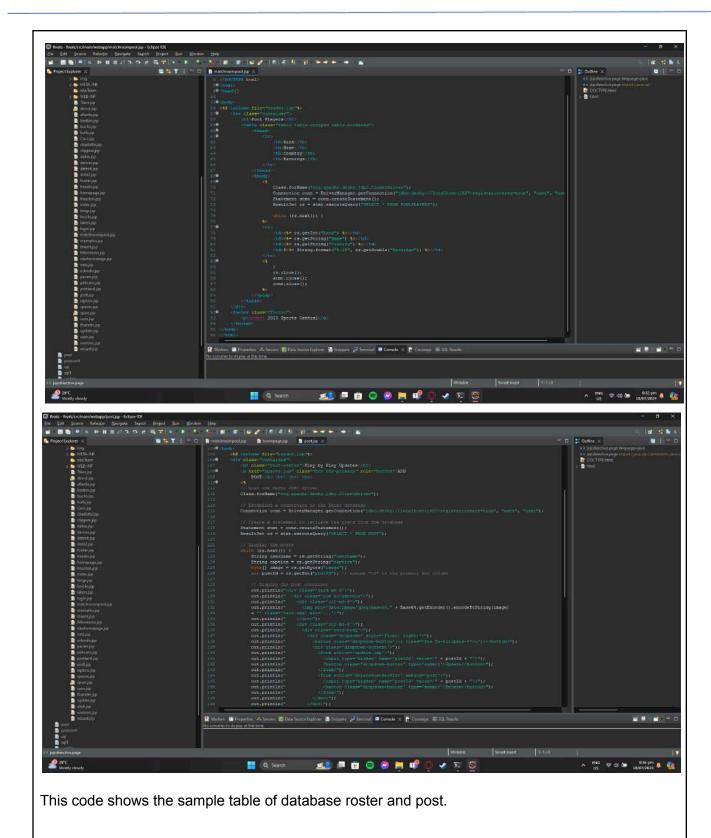
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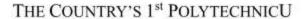
This servlet efficiently handles updating posts in a web application, optionally including image uploads, and manages database interactions using JDBC for Derby database. It's structured to handle errors gracefully and ensures proper resource cleanup.















- USER MANUAL



