**Report : Currency Converter**

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The Currency Converter project by [himanshuyadav79](https://github.com/himanshuyadav79/CurrencyConverter" \t "_new) is a Java-based web application designed to facilitate real-time currency conversions. Built using JavaServer Pages (JSP), it offers a user-friendly interface for converting amounts between different currencies based on current exchange rates.

**Key Features:**

**Real-Time Conversion:** The application fetches up-to-date exchange rates to ensure accurate currency conversions.

**Web-Based Interface:** Designed with HTML and CSS, the interface is straightforward and user-friendly, allowing for easy navigation and interaction.

**Modular Design:** The project follows a modular architecture, promoting separation of concerns and enhancing maintainability.

**Continuous Integration Pipelines:** The repository is configured to integrate Continuous Integration (CI) pipelines, ensuring automated testing and streamlined development workflows.

**Deployment Support:** The project includes configurations to support deployment, facilitating the transition from development to production environments.

**Technologies Used:**

**Java:** The core programming language for the application's backend logic.

**JSP (JavaServer Pages):** Utilized for building dynamic web content and rendering the user interface.

**HTML & CSS:** Employed for structuring and styling the web pages, ensuring a responsive and visually appealing design.

**CI/CD Tools:** Integration with tools like Jenkins and Azure Pipelines is indicated by the presence of Jenkinsfile and azure-pipelines.yml in the repository, facilitating continuous integration and deployment processes.

**Project Structure:**

The repository includes several key files and directories:

CurrencyConverterApp/ **Directory:** Contains the main application code, including JSP files and Java classes.

index.jsp**:** The main JSP file serving as the entry point for the application.

style.css**:** Defines the styling rules for the application's user interface.

pom.xml**:** The Maven Project Object Model file, managing project dependencies and build configurations.

web.xml**:** The deployment descriptor file, configuring the web application's components and settings.

**CI/CD Configuration Files:** Includes Jenkinsfile and azure-pipelines.yml for setting up continuous integration and deployment pipelines.

**Setup and Installation:**

To set up the project locally:

**Clone the Repository**

**git clone https://github.com/himanshuyadav79/CurrencyConverter.git**

**Navigate to the Project Directory:**

cd CurrencyConverter

**Build the Project Using Maven:**

mvn clean install

**Deploy to a Servlet Container:** Deploy the generated WAR file to a servlet container like Apache Tomcat.

**Access the Application:** Open a web browser and navigate to http://localhost:8080/CurrencyConverter to use the application.

**Running the Project:**

After deployment, the application can be accessed via a web browser. Users can input the amount and select the source and target currencies to perform conversions based on real-time exchange rates.

**Deployment:**

The presence of CI/CD configuration files suggests that the project is set up for automated deployment processes. Integration with tools like Jenkins and Azure Pipelines facilitates continuous integration and deployment, ensuring that changes are tested and deployed efficiently.

**Contributing:**

Contributions to the project are welcome. Potential contributors can fork the repository, make enhancements or bug fixes, and submit pull requests for review.

**Author:**

The project is developed and maintained by Himanshu Yadav.

For more details and to access the source code, visit the [CurrencyConverter GitHub repository](https://github.com/himanshuyadav79/CurrencyConverter" \t "_new).