**Software Requirements Specification (SRS) Document for Government Regulated Price Hike Control Application.**

## 1. Functional Requirements:

### I. Real-Time Price Monitoring:
➤ Users can access real-time updates on the prices of essential commodities.
➤ Government-regulated prices are displayed to ensure transparency.

**Priority Level:** High.

**Precondition:** User access to the Government Regulated Price Hike Control Application platform.

### II. Price Comparison:
➤ Users can compare prices of commodities across different regions and retailers.
➤ Visual representation of price trends over time to help consumers make informed decisions.

**Priority Level:** Medium.

**Precondition:** User registration on the Government Regulated Price Hike Control Application.

### III. User Reports and Complaints:
➤ Consumers can report price gouging or discrepancies through the app.
➤ Users can attach receipts or photos as evidence for their complaints.

**Priority Level:** High.

**Precondition:** User registration on the platform.

### IV. Government Alerts and Notifications:
➤ Users receive alerts about sudden price changes or shortages in the market.
➤ Notifications about government interventions or policy changes affecting prices.

**Priority Level:** High.

**Precondition:** User registration on the platform.

### V. Data Analytics and Insights:
➤ The app analyzes price data to detect unusual patterns or potential syndicates.
➤ Insights are provided to the government for proactive measures.

**Priority Level:** High

**Precondition:** Continuous data collection and user participation.

## VI. Licensing and Trade Number Verification:
➢ The app verifies the license or trade number of shops and retailers.
➢ Ensures that only registered entities can list their prices.

**Priority Level:** Medium.

**Precondition:** Access to a database of registered shops and retailers.

## VII. Consumer Education:
➢ Provides information on fair pricing and consumer rights.
➢ Educational content on how to use the app and report issues.

**Priority Level:** Low.

**Precondition:** Availability of educational materials on fair pricing and consumer rights.

## VIII. Market Trend Visualization:
➢ Graphs and charts to visualize market trends and price fluctuations.
➢ Helps users understand the broader market context and seasonal variations.

**Priority Level:** Medium.

**Precondition:** Availability of historical price data and market trend analysis algorithms.

## IX. Inventory and Stock Updates:
➢ Retailers can update their inventory status to reflect stock availability.
➢ Users can see which items are in stock and their current prices.

**Priority Level:** High.

**Precondition:** Retailers have access to the platform to update their inventory status.

## X. Feedback and Suggestions:
➢ Consumers can provide feedback on the app's functionality and usability.
➢ Suggestions for improving the system are collected and reviewed.

**Priority Level:** Medium.

**Precondition:** Users have access to the feedback section within the app.

## XI. Secure Data Handling:
➢ Ensures that all user data is securely stored and transmitted.
➢ Compliance with data privacy regulations to protect consumer information.

**Priority Level:** High.

**Precondition:** Users provide personal data or engage in transactions within the app.

### XII. User-Friendly Interface:
  ➢ Intuitive and easy-to-navigate interface for both mobile and desktop users.
  ➢ Multilingual support to cater to diverse user demographics.

**Priority Level:** High.

**Precondition:** Users access the application on mobile devices or desktop computers.

### XIII. Integration with Other Government Services:
  ➢ Seamless integration with other e-governance platforms for comprehensive service delivery.
  ➢ Cross-referencing with agricultural and consumer protection databases.

**Priority Level:** High.

**Precondition:** Availability of relevant e-governance platforms and databases.

### XIV. Predictive Modeling and Alerts:
  ➢ Uses predictive analytics to forecast potential price hikes or shortages.
  ➢ Alerts are sent to the government and consumers in advance to prepare accordingly.

**Priority Level:** High.

**Precondition:** Availability of historical price data and predictive analytics algorithms.

### XV. Retailer and Producer Registration:
  ➢ Allows retailers and producers to register and list their products.
  ➢ Ensures a broad and diverse database of prices for accurate monitoring.

**Priority Level:** High.

**Precondition:** Verification process for retailer and producer registration.

### XVI. Compliance and Regulatory Reporting:
  ➢ Generates reports for government agencies to track compliance and market health.
  ➢ Provides data-driven insights to support regulatory decisions.

**Priority Level:** High.

**Precondition:** Data collection and analysis for regulatory reporting.

## 2. Non-Functional Requirements:

**Usability:**

A. The system should ensure a responsive user interface that provides timely feedback to user queries and actions, with a maximum response time of 3 seconds for standard operations.

**Priority:** High.

B. The user interface should be intuitive, employing familiar design patterns and navigation structures to enhance user experience. The layout should prioritize essential functions and information, promoting ease of use for users of varying technical proficiency.

**Priority:** Medium.

C. The system should incorporate clear and concise error messages, guiding users in troubleshooting issues and providing actionable steps for resolution.

**Priority:** Medium.

D. User interactions should follow established usability principles, including consistency, predictability, and feedback mechanisms, to minimize cognitive load and promote efficient task completion.

**Priority:** Medium.

E. User documentation and onboarding materials should be readily accessible and comprehensive, offering clear instructions and guidance on system functionality and features.

**Priority:** Low.

F. The system should support customization and personalization options, allowing users to tailor their experience based on individual preferences and requirements.

**Priority:** Low.

G. Continuous user feedback mechanisms should be implemented to gather insights into user satisfaction, identify pain points, and inform iterative improvements to the system's usability over time.

**Priority:** Medium.

**3.  Project Development Constraints:**

**Project Development Constraints:**

**1. Hybrid Development Methodology:** This constraint emphasizes the adoption of a hybrid development methodology that integrates aspects of Agile and Waterfall, ensuring a balance between flexibility and structure in project management. Given its foundational role in guiding the development process, it's prioritized as high.

**2. Clear Definition of Roles and Responsibilities:** This constraint ensures clarity in roles and responsibilities within the development team, promoting effective communication and collaboration. Prioritized as high, it's fundamental to team efficiency and cohesion, essential for project success.

**3. Continuous Delivery of Features:** Emphasizing continuous delivery ensures that the project maintains momentum and delivers value incrementally. This constraint is prioritized as high, reflecting its importance in meeting project goals efficiently and effectively.

**4. Flexibility and Adaptability:** This constraint acknowledges the dynamic nature of project requirements and priorities, highlighting the need for adaptability. Prioritized as high, adaptability is crucial for responding to changing circumstances and ensuring project success in a rapidly evolving environment.