Kisan Seva Application

ID	Upstream Traceability	Type	Description	Implemented By	Sta
SRS-1		Section	1 Introduction The vision of this project is to ensure fair price to the farming community by devising new techniques and by making use of online market. An application, that serves as a platform for movement of agricultural products from the farms directly to the consumer or retailer. This mobile and web application provides privilege for both farmers and consumers to buy and sell the required farm products without the involvement of middleman at its right profitable price.		
SRS-2		Section	1.1 Purpose The need for timely access to information for decision making in agricultural sector need no emphasis. Keeping this in view various options need to be explode for transferring information to farmers in timely and cost effective manner. The advantage of mobile application include: affordability, wide ownership, voice communication and instant and convenient service delivery. The main purpose of forming regulated market is to eliminate the unhealthy trade practice, to reduce marketing expenses and to provide fair prices to the farmer for their crop.		
SRS-3		Section	1.2 Scope There is a great scope for eagri business in agriculture. Products like tea, sugar, dairy products, agri products can also be sold online to gain profit. Advantages: 1. Global Market 2. Inventory cost 3. Consumer Service 4. Distribution Period 5. Direct Link		
SRS-4		Section	1.3 Product perspective The goal of the system is are as follows: 1. Farm calculator enable user to calculate plant population for desired are with different spacing requirement. 2. Farmers can directly talk to scientist and expert to clarify field level problems and queries. 3. Farmers can communicate with other farmers. 4. Farmers can updates about price hiking and government policies.		
SRS-5		Section	1.3.1 System interfaces Application can run on android phones having version 4.4 and above.		
SRS-6		Section	1.3.2 User interfaces GUI depicting the login for both farmers and customers into the application. Dashboard depicting there individual functions that they may carry out. Application UI will be easy to handle and language friendly taking in consideration of illiterate people.		
SRS-7		Section	1.3.3 Hardware interfaces Application will run on only android phones. If in future scope permits it can be converted to web application and hence could be access through computers. To host the application, hardware servers will be required for portal server, application server, database, SMS server with adequate backup facilities and disaster recovery mechanism for 24*7 availability.		
SRS-8		Section	1.3.4 Software interfaces • Operating system : Android • Database : MySQL • Front end : JAVA • Back end : JAVA User will be able the application having base operating system. On server side in addition to base operating system, software will be required for internet server, content management, database, application frameworks, email server, SMS server etc.		
SRS-9		Section	1.3.5 Communications interfaces To access the application internet connectivity will be needed at both server and client side. Along with this the application will interact with SMS gateway server to push SMS to different stakeholders. An email server to send to automated emails generated from the system to various stakeholder.		
SRS-10		Section	1.3.6 Memory constraints It requires memory to store data about farmers. Also to store information that will be uploaded by farmer.		
SRS-11		Section	1.3.7 Operations • To provide 1 stop single window solution to all stakeholder • To provide localized and personalized services agricultural related information • To act as a bridge between farmer and government bodies • To provide expert advisory services. • To build farmers database • To provide secure, anytime, anywhere single window delivery of government services.		
SRS-12		Section	1.3.8 Site adaptation requirements • Single window access • Use of icons/pictures/images and graphical interface • Homepage • Discussion board • Digital dashboard • Search • Blogs • Picture gallery		
SRS-13		Section	1.3.9 Interfaces with services At the time of designing the application links will be depicted wherever appropriate. The user is directed to various pages to homepage. From this pages user can go back to home page by clicking on home. Each service specific page will have the link for example "news" to access news to access that service, "subscribe" to link user to specify his service specific requirements for information delivery through e-mail,SMS.		
SRS-14		Section	1.4 Product functions Major functions of the application are as listed below: 1. Content management system 2. Expert advisory and knowledge management		

			3. Farmer's database 4. Feedback mechanism 5. Dashboard 6. News and alerts 7. Discussion forum 8. blogs 9. Related links 10. Help		
SRS-15		Section	1.5 User characteristics Farmers: • Individual farmers • farmer groups • Farmer cooperative Central Government State government Private sector		
SRS-16		Section	1.6 Limitations 1) Hardware Limitations; • Dependency on connectivity • Hardware interfaces for accessibility like speaker, touchscreen 2) Software Limitations: • Screen readers, local language fonts 3) Interfaces to other application : The application need to interact with different set of application and portals. 4) Parallel operation: Unexpected increase in the number of concurrent user request during peak transaction period. 5) Higher order language requirements : The applications under Kisan Seva will be vernacular language and language is not constrained.		
SRS-17		Section	1.7 Assumptions and dependencies • Data is an asset. It is a valuable resource, as it has real and measurable value. Accurate and timely is critical to quality and efficiency of service. Data input and its accuracy will depend on the user. • Content generation and updation will be done timely by the user. User • will provide content in local language. • Various government department involvement will be needed to collaborate and share information in order to provide various scheme. • Commitment from information resources will be required. • User will devise mechanism and designate officers for timely resolution of grievances and queries raised under expert advisory.		
SRS-18		Section	1.8 Definitions Farmer ID : ID is limited to 8 character in API Message length : for standard character set 160 character per SMS is supported.		
SRS-19		Section	1.9 Acronyms and abbreviations COM : component DB : database DR : disaster recovery ID : identity GUI : graphical user interface		
SRS-20 □		Section	2 Requirements		
SRS-21		Section	2.1 External interfaces • Browser • Mobile SMS server Email • mail server National • service registry State • agricultural portal State • service registry Existing • application External • application		
SRS-22		Section	2.2 Functions • Sign in : ○ After registration user will be allowed to login on the application clicking "sign in" link proved on the application. User has to provide user-id and password and enter verification code. After successfully login he can access the user specific services for which he has privileges like upload the content of success stories ,participate in forum, ask queries to expert, etc. • Customize: ○ It will allow user to change look and field of the application as per choice of user. My • Agri : ○ Using "MY AGRI" link user will be able to manage his accounts for central agricultural portal. • Ask the experts: ○ User can ask his queries to experts using the interface provided on the application. • Message board: ○ Important messages for the Stakeholders will be displayed here. • Farmers corner: ○ This section allows farmers to access farmers specific services and contents in a single window. And upload the contents for success stories, events, highlights, blogs and discussion. • Daily prices ○ Bar for daily prices will display the latest prices of agricultural commodities. Top • stories ○ This section will display the top story as uploaded by the user using content management system and approved by site manager. • Events ○ This section will display the events details as uploaded by the user using content management system and approved by site manager. • Highlights :		

			◦ This section will display will display highlights uploaded by the user using content management system and approved by site manager. • Kisan call center : ◦ This link will provide information about kisan call center, procedure to call, toll free number to call, etc. • Search for product ◦ Here customer will search for any dairy or agricultural product. Chat • forum: ◦ Here customer can contact with other customer and directly contact with nearby customer. • Add to cart : ◦ Here customer can add product to the cart and can update the cart. Customer can repeat the previous cart for next transaction. • Payment option ◦ Customer can have multiple options for payment.		
SRS-23		Section	2.3 Usability requirements 1. Present information to user in clear and concise way 2. To give correct choices to the user, in a very obvious way 3. To remove any ambiguity regarding the consequences of an action 4. Put the most important thing at right place on application.		
SRS-24		Section	2.4 Performance requirements Performance is defined as responsiveness. Application should manage user load and response time. Loading of static page should not take much time and page should be rendered immediately within few seconds. It should take less time for database access/update transaction as well. However for report generation and query retrieval it may take sufficiently more time depending on data volume and complexity of queries.		
SRS-25		Section	2.5 Logical database requirements Database will have two categorization of table these are Master table and Transaction table. Master table will be common across all application.		
SRS-26		Section	2.6 Design constraints The focus of application is on the seamless, anywhere and anytime delivery of prioritized services. The scope and magnitude of application is likely to impact service delivery of at least identified core services. The following section outline these objectives from holistic perspective, keeping in the view of all requirements of all the stakeholders, as well as the constraints within which the proposed solution would need to operate. Design objective of proposed solution are: • Provide web based UI • Support multiple access device such as desktop computer, PDA, mobile phones. • Ensure confidentiality of user data • Enable easy discovery of information. • Allow internal, external and associated agencies to the online platform. • Allow farmers and private sector to access services through a single window interface. • Facilitate delivery of re-engineered manual processes through an online platform. With the above objective in mind, the design considerations are made that had to be kept in mind during the design of proposed technology solution.		
SRS-27		Section	2.7 Standards compliance Kisan Seva application should meet global standards in best practices, design and functionality. The application should comply with following standards: 1. Guidelines for Indian Government websites. 2.Localization standards. The standards to be adopted with respect to various aspects have been discussed.		
SRS-28		Section	2.8 Software system attributes Software system attributes for application are as follows: • High availability : ◦ High availability refers to a system or component that is continuously operational for a desirable long length of time. Kisan Seva should be highly available, it is essential that all components are operational all the time. The risk of interruption of operation of application must be established in advance and managed manner. • Scalability : ◦ Scalability is the ability of the system, network or processes, to handle growing amount of load in a capable manner by means of deploying additional resources, if required without any noticeable degradation of its performance. In case of kisan seva, horizontal as well as vertical scalability is important design consideration, as it is envisaged that the number of end user will increase with more initiative after the pilot roll out. • Interoperability : ◦ Interoperability is the ability of the diverse system and organization to work together. The interfaces of Kisan Seva should be properly exposed to make it interoperable. • Reliability : ◦ Software reliability is an important attribute of software quality. It is the probability of failure-free software operation for a specific period of time. It is expected that there shall not be any bug while operating Kisan seva and the application shall be tested on end cases to offer user quality and reliable package. • Usability : ◦ Is a quality attribute that assesses how easy interfaces are to use. Kisan Seva should be easy to use. The underlying technology should be transparent to user so that they can concentrate at task at hand. • Portability : ◦ Is the usability of the same software in different environment. • Extensibility: ◦ It refers the ability to add new functionality without requiring major changes to the existing code. Kisan Seva should be extensible in the sense that new features can be easily added or plugged in without any significant changes to the existing system. • Maintainability : ◦ It is defined as the ease with which a software system or a component can be modified to correct faults, improve performance or other attributes, or adapt to a changed environment. Kisan Seva should have high maintainability. Applications on Kisan Seva will be maintained uniformly. But some applications may need customization as per the requirements of state. • Accessibility :		

			◦ It is a general term use to describe the degree to which services available to as many people as possible. Kisan Seva should have wide reach. Since the major stakeholder of the application having limitations of literacy rate, devices and connectivity speed.		
SRS-29		Section	3 Verification Verification component will make sure that stakeholders must be able to access only the information for which they have privileges to access. An authorized system user should be allowed to define various available roles in the system. Each user will be mapped to the respective role. Based on this user will be provided access to available functionalities.		
SRS-30		Section			
SRS-31		Section	4 References Jose Francisco Aguilar: requirements specification for mobile software for e-commerce and its adoption by small organic farmers in Costa Rica. Krishi Vigyan Kendra https://icar.org.in/content/krishi-vigyan-kendra		