High Level Design Document

Use case Name: E-Seva – Government Services Application

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Abstract :

E-Seva is a centralized digital platform built using Pega to deliver various government services online. It automates processes, enables real-time tracking, and provides a transparent and efficient system aligned with the Digital India initiative.

Scope :

- Citizen user registration and login.
- Apply for various government certificates (e.g., Caste, Income, Birth).
- Upload supporting documents.
- Online payment for services.
- Track application status in real-time.
- SMS and Email notifications.
- Government officer login for application processing.
- Approve/Reject with remarks and SLAs.
- Generate final certificates in PDF.
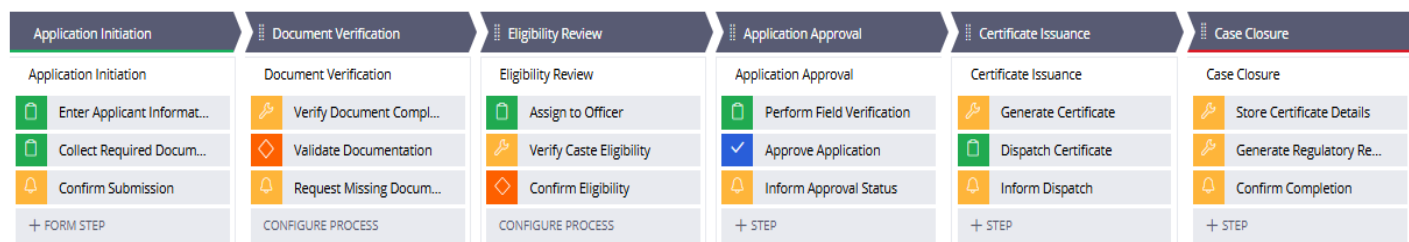- Admin dashboard and reporting system.

Design :

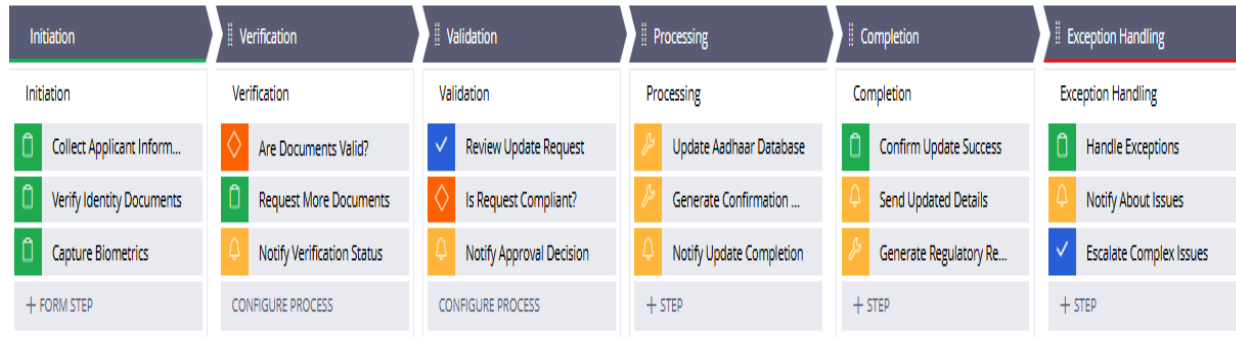**Application Name** : E-Seva

Organization Name : GovTech India

Application Structure : Implementation
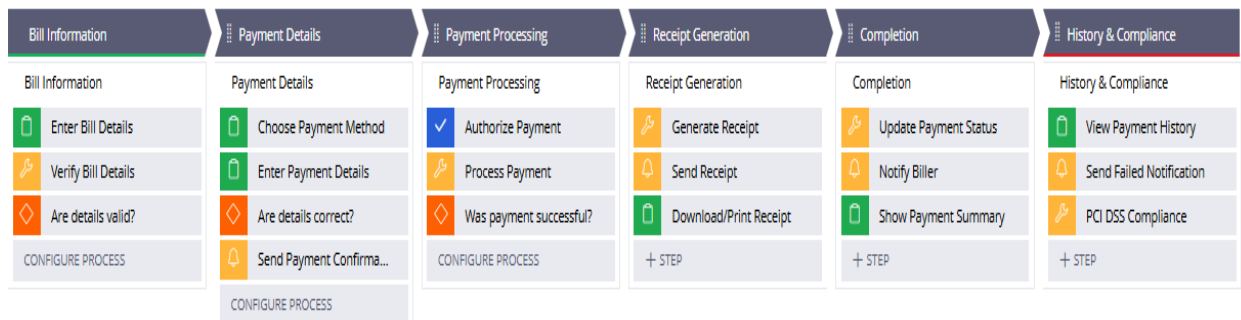
Case Design :

Case Type 1 : Caste Certificate

Case Type 2 : Aadhar Update

Initiation	Verification	Validation	Processing	Completion	Exception Handling
Initiation	**Verification**	**Validation**	**Processing**	**Completion**	**Exception Handling**
Collect Applicant Inform...	Are Documents Valid?	Review Update Request	Update Aadhaar Database	Confirm Update Success	Handle Exceptions
Verify Identity Documents	Request More Documents	Is Request Compliant?	Generate Confirmation ...	Send Updated Details	Notify About Issues
Capture Biometrics	Notify Verification Status	Notify Approval Decision	Notify Update Completion	Generate Regulatory Re...	Escalate Complex Issues
+ FORM STEP	CONFIGURE PROCESS	CONFIGURE PROCESS	+ STEP	+ STEP	+ STEP

Case Type 3 : Income Certificate

Application Initiation	Document Verification	Department Review	Income Verification	Certificate Issuance	Completion and Archival
Application Initiation	**Document Verification**	**Department Review**	**Income Verification**	**Certificate Issuance**	**Completion and Archival**
Enter Applicant Informat...	Verify Documents	Forward to Revenue Dept	Review Income Details	Generate Certificate	Store Certificate Details
Collect Required Docum...	Check Verification Status	Notify Department	Check Income Status	Notify Applicant	Request Feedback
Confirm Submission	Request More Documents	Regulation Compliance ...	Approve Income	Issue Certificate	Generate Regulatory Re...
+ FORM STEP	CONFIGURE PROCESS	+ STEP	CONFIGURE PROCESS	+ STEP	+ STEP

Case Type 4 : Bill Payment

Bill Information	Payment Details	Payment Processing	Receipt Generation	Completion	History & Compliance
Bill Information	**Payment Details**	**Payment Processing**	**Receipt Generation**	**Completion**	**History & Compliance**
Enter Bill Details	Choose Payment Method	Authorize Payment	Generate Receipt	Update Payment Status	View Payment History
Verify Bill Details	Enter Payment Details	Process Payment	Send Receipt	Notify Biller	Send Failed Notification
Are details valid?	Are details correct?	Was payment successful?	Download/Print Receipt	Show Payment Summary	PCI DSS Compliance
CONFIGURE PROCESS	Send Payment Confirma...	CONFIGURE PROCESS	+ STEP	+ STEP	+ STEP
	CONFIGURE PROCESS				

Personas :

Citizen (Web/Mobile Portal)

Channel : Web browser, Mobile browser (responsive design)
Role : Service Request Initiator (End User)

Responsibilities:

- Register and log in using mobile number/email and OTP.
- Browse available government services (e.g., Income Certificate, Caste Certificate).
- Fill out service request forms with required information.
- Upload supporting documents in PDF/JPEG formats.
- Make online payments through the integrated gateway.
- Track the status of their service requests in real-time.
- Receive notifications and alerts via SMS and Email.
- Download approved certificates directly from the portal.

Officer (Web Portal)

Channel: Internal Government Web Portal
Role: Application Reviewer and Approver

Responsibilities:

- Log in securely using assigned credentials.
- View and manage incoming service requests assigned to their department or queue.
- Verify uploaded documents and validate user information.
- Approve or reject requests based on document validity and internal rules.
- Add remarks or comments in case of rejection or clarification.
- Update the request status at each processing stage (e.g., Verified, Approved).
- Ensure requests are resolved within SLA timelines.
- Escalate or reassign requests as needed.

Admin

Channel: Internal Admin Dashboard (Web Only)
Role: Application Supervisor and Report Manager

Responsibilities:

- Monitor overall performance and usage of the E-Seva system.
- View real-time dashboards showing request volumes, pending SLAs, and officer workload.
- Manage operator and access group settings (create/delete/edit users).
- Configure service availability and workflows.
- Generate analytical reports on service usage, processing times, and payment collections.
- Handle escalations and support issues raised by officers or citizens.

- Coordinate with IT or technical teams for integration and updates.

Data & Interfaces :

- Aadhaar Validation via External API
- Payment Gateway Integration
- Document Upload (PDF/JPG)
- SMS/Email Notification Services

Data Object	Attributes	SOR
Citizen	CitizenID, Name, Mobile, Email, Aadhaar Number, Address, DOB	Pega SOR(External)
ServiceRequest	RequestID, ServiceType, RequestDate, Status, OfficerAssigned, Remarks	Pega SOR
Document	DocumentID, FileName, FileType, UploadedBy, LinkedRequestID	Pega SOR
PaymentInfo	PaymentID, Amount, Mode, TransactionDate, Status	Pega SOR(External)
Officer	OfficerID, Name, Department, Designation, WorkQueue	Pega SOR
Notification	NotificationID, MessageType (SMS/Email), ReceiverID, Timestamp, Status	Pega SOR

Enterprise Class Structure Diagram

- **Org Layer**: GOV-ESEVA
  - Integration Layer : GOV-ESEVA-Int-*
  - Data Layer: GOV-ESEVA-D ata-*
- **App Layer** (application class)
  GOV-ESEVA-APP
    - **Data layer :**
      - GOV-ESEVA-APP-Data-*
    - **Int layer :**
      - GOV-ESEVA-APP-Int-*
    - **Work layer :**
      - GOV-ESEVA-APP-Work-IncomeCertificate
      - GOV-ESEVA-APP-Work-CasteCertificate
      - GOV-ESEVA-APP-Work-AadharUpdate
      - GOV-ESEVA-APP-Work-BillPayment

Header:

1. Logo
2. Welcome, [Name]
3. Logout Button

Portal Design

Citizen Portal UI

Left Navigation Menu:

1. **Dashboard**:
   o View summary of submitted applications, current status, and service timelines
   o Quick links to apply for new services
2. **Apply for Service**:
   o Form to select service type (e.g., Income, Caste Certificate)
   o Dynamic input fields based on selected service
3. **My Applications**:
   o Table/List view showing previously submitted requests, their statuses, and option to view/download certificates

Main Content Area:

- Displays dynamic content based on selected navigation menu item
- Shows forms, status trackers, alerts, and downloadable documents

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Government Officer Portal UI

Left Navigation Menu:

1. **Dashboard**:
   o Summary of pending, approved, and rejected applications
   o SLA performance and notifications
2. **Verify Applications**:
   o List of assigned applications
   o View submitted forms and uploaded documents
   o Options to approve, reject, or request re-submission
3. **Reports**:
   o Filter-based report generation by service type, location, or date
   o Export to PDF/Excel

Main Content Area:

- Uses dynamic sections, repeat grids, and document viewers
- Enables inline approval, adding remarks, and history tracking

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Admin Portal UI

Left Navigation Menu:

1. **Admin Dashboard**:
   - Metrics: total applications, officer workload, SLA breaches
   - System alerts and downtime logs
2. **Manage Users**:
   - Create/Edit/Delete operators and work groups
   - Assign roles and access groups
3. **Analytics & Reports**:
   - Usage statistics
   - Monthly service trends and department-wise analysis

Main Content Area:

- Displays advanced reports, filters, graphs, and system controls
- Supports administrative actions like configuration updates

Report Design :

Insights / Reports:

- Pending Requests by Department
- Average SLA completion time
- Rejected Requests by Reason
- Applications per Service Type
- Payments Collected per Month

User Details

Access Groups:

- CitizenAccess
- OfficerAccess
- AdminAccess

Work Groups:

- RevenueDeptGroup
- MunicipalDeptGroup
- AdminGroup

Work Queues:

- RevenueOfficerQueue
- CasteOfficerQueue
- GeneralCertificateQueue

Sample Operator IDs:

- citizen123@eseva
- officer.income@eseva
- admin.panel@eseva