THROUGH ASIGMA ONLY

Tele: 2335 HQ Northern Command

PIN: 908 545 C/o 56 APO

0407005P/VIMOCHAN SW/24

05 Jun 2024

Dte Gen of Info Sys IHQ of MoD (Army) Rao Tula Ram Marg New Delhi - 110010

WHITELISTING OF IN-HOUSE DEVP SOFTWARE FOR AUTOMATION OF AG'S BR, HQ NORTHERN COMMAND : PRE-APVL STG

1. PI ref SOP on (Whitelisting of Appl SW in IA) promulgated vide DDGIT, DGIS, GS Br, IHQ of MoD (Army) Letter No B/04001/Policy/Whitelisting SOP/DDGIT (T&P) dt 19 Jul 2022.

2. **Background**.

- (a) AG's Br, HQ Northern Comd deals with certain sensitive issues to incl Manpower Mgt, Cas Reports, Med Data of Pers etc for which constant and real-time monitoring is sine qua non. The present sys of maint of data necessitates manual maint of similar data at all units/ fmns in chain, ldg to duplicity of effort. Further, genr of R&R is also being resorted to in a manual mode ldg to infructuous ex in collation and compilation of data and wastage of Sty & IT resources.
- (b) With the present sys, it is difficult to ensure effective monitoring of these ongoing cases. Further, any prog/ updates of cases also real-time info dissemination thus become a major lacuna which needs to be added on priority.
- (c) Hence, a web-based application is being devp in-house for compilation collation and analysis incl prep of R&R wrt entire cases of Northern Comd which shall automate the entire reporting data, collation and analysis of cases related to AG's Branch, cas reporting and various R&R of AG's Br, HQ Northern Comd.
- (d) The software being devp shall also provide data analytics, thus empowering Cdrs at all levels to initiate necessary measures whilst dealing with various cases.
- (e) The software being devp shall be scalable for dply over existing ADN infra, for real time comn rt from unit to IHQ of MoD (Army) and shall also be access cont based.
- 3. **Policy Provns**. Para 8 of the SOP on Whitelisting of Appl Software (SW) in IA, stipulates the procedure for application of whitelisting of in-house devp software at pre-apvl stg.

- 4. **Proposal**. It is proposed that approval of Competent Auth may pl be gtd for in-house devp of the ibid software. Detls as mandated vide Para 9 (a) of the ibid SOP are att as per **Appx** to this letter.
- 5. An early action is kindly requested.

Sd/-x-x-x-x (A Mukherjee) Col Col A

Encls: As above for MG-ic-Adm

Copy to :-

MP Dte,
AG's Branch
IHQ of MoD (Army)
DHQ PO,
New Delhi-110011

DDGIT, Dte Gen Info Sys General Staff Branch IHQ of MoD (Army) DGIS Enclave, RTR Marg New Delhi-110010 - For info pl.

ACG, IHQ of MoD (Army) - For info and necessary action pl.

Internal:-

GS (IS) Br - For info pl.

CCOSW, Branch - For info pl.

Appx

(Ref Para 4 of HQ Northern Comd letter No 0407005P/VIMOCHAN SW/24 dt 05 Jun 24)

CHECKLIST: PRE APVL STG

Ser	Mandatory Details	<u>Remarks</u>
No		
1.	Name of proj (incl ver).	VIMOCHAN Software Ver 1.0
2.	Name of Sponsor.	HQ Northern Command, AG's Branch
3.	Type of Sw (Bespoke/ COTS/ Customized).	Bespoke
4.	Brief justification/ endorsement on reqmt for devp of Sw appl.	 AG's Branch, HQ Northern Comd deals with sensitive issues to incl manpower mgt, cas reports, med data of pers etc, for which constant and real-time monitoring is sine qua non. In addn, Northern Comd has numerous C of Is related to Suicide/Suspected Suicide, MACT, Gen Complaint, Stat, Non-Stat Complaint, Ex-Gratia Relief, Time Barred Cases, Cases regarding condonation of delay in conduct of AME/ PME, Cases related to condoning of delay in Publication of Battle Cas, which are concurrently in prog, status of which is reqd to be constantly monitored at all levels to avoid any legal complications/ issues at a later stg.
		 These cases are processed by fmn HQs at all levels and each fmn manually updates the data of processing of cases and genrs relevant R&R. Flow of reports and status of cases is thus long-drawn, ldg to info voids. This data is also reqd to be processed with IHQ of MoD (Army), thus necessitating a faster, robust and real-time sys with data integrity.
		 Hence, a web-based application is being devp in-house for compilation, collation and analysis incl prep of R&R wrt entire cases of Northern Comd (to incl AG's DV, HR, JAG & Med matters), which shall automate entire reporting data, collation and analysis of cases, cas reporting and various R&R of all branches.
		Software being devp shall also provide data analytics, thus empowering Cdrs at all levels.
		Software being devp shall be scalable for dply over existing ADN infra, for real time comn rt from unit level to IHQ of MoD (Army) and shall also be access cont based.

<u>Ser</u> No	Mandatory Details	<u>Remarks</u>
5.	Aim & Scope Purpose incl utility, beneficiaries and tgt users).	To create ADN based solution for real-time info dissemination and monitoring as well as eval of all cases pertaining to AG's, DV, HR, JAG & Med matters of entire Northern Comd, thus establishing connectivity rt from unit level to IHQ of MoD (Army) whilst adopting access cont procedures.
6.	To be hosted on internet/ ADN with brief justification.	To be hosted in ADN to achieve seamless and synergized monitoring of all AG's related matters and auto genr of R&R in all cases, thus ldg to an extensive cost saving measure on acct of expdr on IT & Sty.
7.	Usability of proposed appls by other arms/ services/ org/ est.	Once devp, the appln being scalable, it can be used by AG's, DV, HR, JAG & Med Brs Pan-IA.
8.	HW and IT Infrastructure reqd.	All PCs using ibid appln to have ADN connection.
9.	Brief details of content of the proposed Sw appl.	Screenshots are att as Annx-I.
10.	Endorsement by Head of Br/ Svc/ Fmn.	Endorsement by MG-ic-Adm, HQ Northern Command, is att as Annx-II.
11.	Details of user base.	All users handling AG's DV, HR, JAG & Med matters, rt from unit level to IHQ of MoD (Army).
12.	Envisaged cost of entire proj incl license fees and maint	Nil, Maintenance charges will be clear after deployment
13.	Projected dt of completion incl maj timelines	July 2024.
14.	Brief details of SW platform and tech stack proposed for devp of appl incl op sys dependences (if any)	The software is a web application developed using ASP.NET MVC technology. It aims to manage / automate the internal official process/ task of the unit. Platform Overview:
		Microsoft Visual Studio .Net 2022
		Framework: .Net 4.6
		 Frontend: HTML, Css3, JavaScript, Jquery above 3.5, Bootstrap above 4.6, AM Charts, JS Charts Backend Technology: ASP.NET MVC with C# 8 programming language
		Database: SQL Server 2016
		Architecture: MVC with Agile methodology
		Hosting: IIS (Internet Information Server)

Ser	Mandatory Details	<u>Remarks</u>
<u>No</u>		
		OS and Dependencies:
		Windows: Currently the application supports windows 8,10,11 32 and 64 bit compatible.
		Linux & MacOS: Not Supported
		Lis should be enabled in Windows OS
		.Net framework 4.5 and above should be installed on Windows OS.
15.	Brief details of proposed network and bandwidth regmts	To be hosted on existing ADN.
16.	Brief details of OS & Sys software regmts	Operating System (OS) Requirements:
		Windows Server 2016 or later
		Windows 8 or later
		System Software Requirements:
		.NET Framework 4.6 or above
		Sql Server 2016 or above
		Web server: IIS7 or above
		 libraries needed (jquery3.5, bootstrap4,5, amchart, spirepdf, razorengine)
		Hardware Requirements:
		 Minimum RAM 8 for server and CPU specifications intel i5 or above
		Disk space 10 GB or above
17.	Brief details of proposed data security	Encryption and Secure Communication:
	measures incl backup of data	 Will use the strong encryption technique to protect sensitive data in transit and also use SSL/TLS certificates to ensure secure communication over HTTPS.
		Authentication and Authorization:
		 Application is fully protected with the user rts based on defined user roles.
		Password Policy:
		The password policy used as per ADN user policy. IAM integration to be carried out in consonance with ACG.
		Secure Database Access:
		Application using the OEM provided database connection provider which is not
		dependent on the database platform. Database connection strings securely

	stored. Used secure storage mechanisms like environment variables, Key Vault, or configuration managers. Data Backup and Disaster Recovery: • Windows based tool (exe) takes database backup as .bkp format every 3 hours automatically. The backup file is stored in specified path. Session Management: • Session cont management for logging users. Controlled URL hijacking.
Brief details of proposed database engine to be used in the appl	MS SQL Server using SQL Server with ASP.NET MVC.
Details of Sw architecture and COTS Sw proposed to be utilized.	Designing an ERP (Enterprise Resource Plg) Sw for DV Branch data management and automation necessitated a comprehensive and secure architecture to handle sensitive info and complex processes. The architecture overview is as follows:- 1. Presentation Layer. The presentation layer focuses on user interaction and interface components. • User Authentication and Authorization: Ensures secure access through military-grade authentication methods and enforces role-based access control to sensitive data. 2. Application Layer. This layer contains the core logic and functionalities. • Main Web Application: This is the startup page of the application where there is some description related to the Branch and auth users can login from the login page. • Home • Org Chart • Login Page • Downloads • Compendium, AO/AI, Policy, Advisory, MML/MISC
	be used in the appl Details of Sw architecture and COTS Sw

<u>Ser</u> No	Mandatory Details	<u>Remarks</u>
140		Contact Us
		Dashboard: Provides a customizable dashboard for different user roles, showing mission-critical data, notifications, alerts, and recent activities.
		-Cas Data Entry
		-View Cas Data
		-View Analytics
		-Upload Documents
		-Dropdown Master
		-Website Slider Master
		-Website What's New
		-Website News & Events
		-Website Important Links
		-Website Front Page
		-User Master
		-C of I Suicide Reports
		3. Functional Area AG's Branch. Pertains to charter (A) Br in detl.
		4. <u>Data Layer</u> . The data layer handles data storage, retrieval, and mgt.
		Database: Utilizes a highly secure, encrypted and scalable database system to store sensitive data such as pers records, case detls, case histories, genr of R&R, comn with subordinate fmns etc.

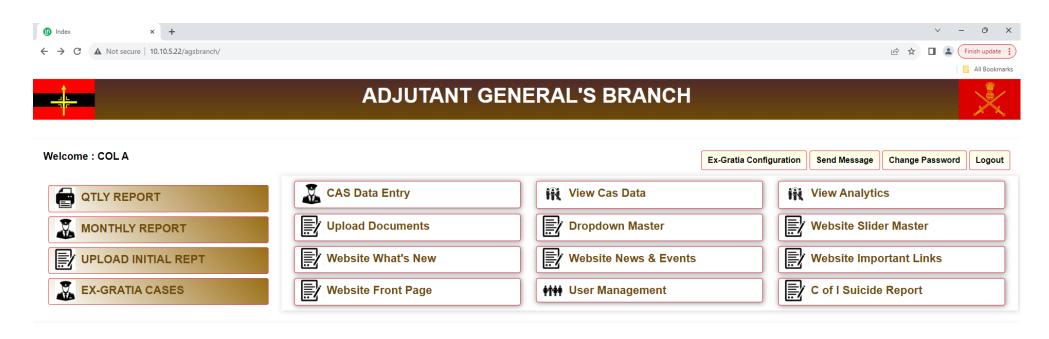
<u>Ser</u> No	Mandatory Details	<u>Remarks</u>
NO		5. <u>Integration Layer</u> . This layer enables seamless comn with external systems and services.
		• APIs: Provides secure APIs for integrating with other military systems, intelligence sources, logistics providers, and external partners.
		6. Security Layer . Given the sensitivity of the data, security is paramount in every layer.
		• Encryption: Implements data encryption at rest and during transmission to protect sensitive information.
		• Identity and Access Management (IAM): Ensures strict authentication and access controls, using two-factor authentication and military-grade protocols.
		• Auditing and Monitoring: Logs and monitors all activities and transactions for potential security breaches.
		7. <u>Infrastructure Layer</u> . This layer comprises the foundational components of the system.
		• Servers : Utilizes secure and redundant server to ensure high availability and performance.
		Network: Establishes a secure network infrastructure with appropriate segmentation to isolate critical segments from public access.
		8. Analytics and Reporting Layer . Provides tools for generating insightful reports and analytics.
		• Cases Analysis: Enables Cdrs at all levels to analyze overall DV hith of the org, the pending cases, various types of offences being committed, etc.
		9. <u>Maintenance and Support</u> . Ongoing maintenance, updates, and support are critical for a reliable system.
		Patch Management: Regularly applies Sw security patches and updates to prevent vulnerabilities.

<u>Ser</u> No	Mandatory Details	<u>Remarks</u>
20.	Details of proposed architecture - Centralized / Federated / Hybrid	Hybrid software/MVC architecture has been used.
21.	Brief details of proposed utilization of Public Key Infra (PKI) and Iden and Access Mgt	Public Key Infrastructure (PKI) and Identity and Access Management (IAM) are two important components in the field of cybersecurity and identity management.
	(IAM)	• Public Key Infrastructure (PKI): PKI framework has been impl as a part of SQL security mgt to apply technologies, policies, and procedures for managing digital identities, encryption, and authentication. This is integral to the devp Sw to ensure secure communication, data integrity, and authentication in a networked environment.
		• Identity and Access Management (IAM): IAM framework is being integrated as a part of the Sw as dir, to ensure adherence to policy provns on the subject. This would ensure user mgt and access cont, that is integral to the overall security infrastructure prior to hosting on ADN.
22.	Technology dependencies (if any)	Operating System (OS) Requirements:
		Windows Server 2016 or later
		Windows 8 or later
		System Software Requirements:
		.NET Framework 4.7 or above (C#)
		SQL Server 2008 R2 or above
		Web server : IIS7 or above
		• Libraries needed (jquery3.5, bootstrap 4,5, amchart, spirepdf, razorengine)
		Browser compatibility: Google Chrome or Mozilla Firefox.
		Hardware Requirements:
		Minimum RAM 8 GB for server and processor intel i5 or above.
		Disk space 100 GB or above (for storage of database).
		Recommended screen resolution (for client 1080 x 1920).

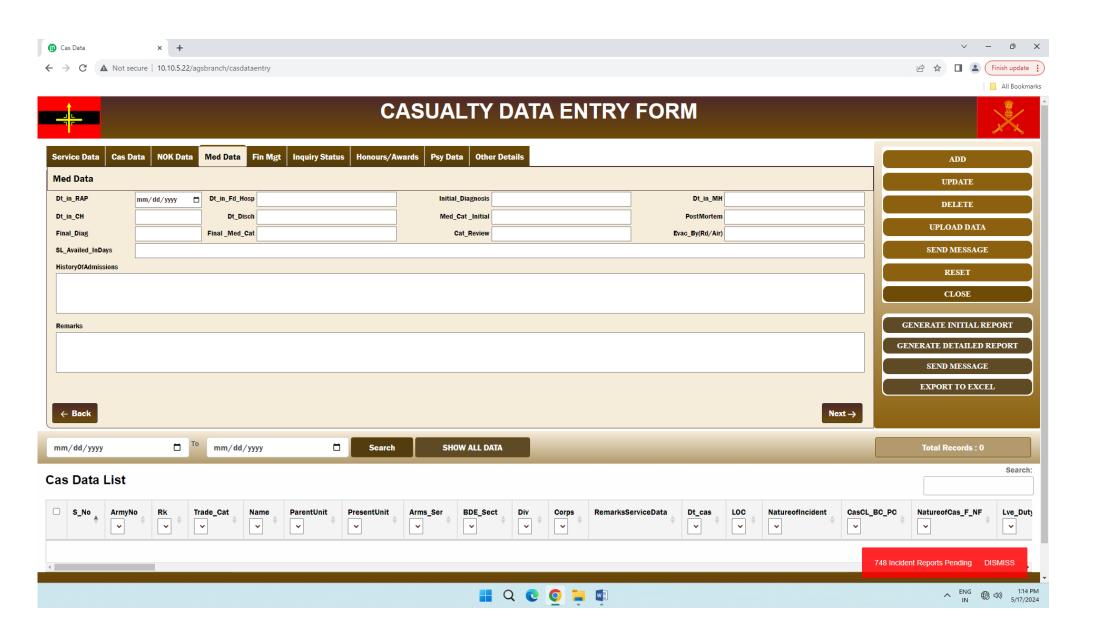
<u>Ser</u>	Mandatory Details	<u>Remarks</u>
No		
23.	Database reqmts	Microsoft SQL Server 2008 or above / SQL Express / Sql Client / Ado.Net for Database
		connection. Microsoft OLEDB Data Provider
24.	Enhancement / upgradation (incl patch mgt /	Through Sw upgradation / security patches being pub by developer and subsequent
	Sw updt procedure and mechanism)	manual instln on the machine, owing to air gapping of server and internet.
25.	Details of licensing (if any)	Nil. Inherent with regd OS.

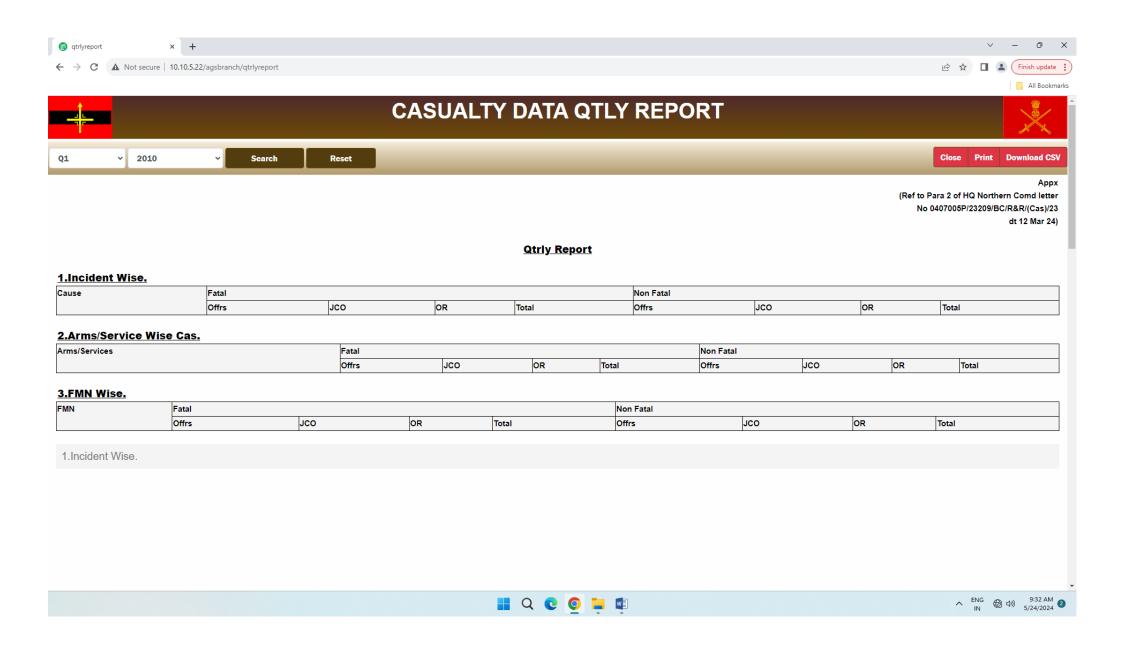
Annx-I to Appx

(Ref Ser No 9 to Appx of HQ Northern Comd letter No 0407005P/ VIMOCHAN SW/24 dt ____Jun 24)

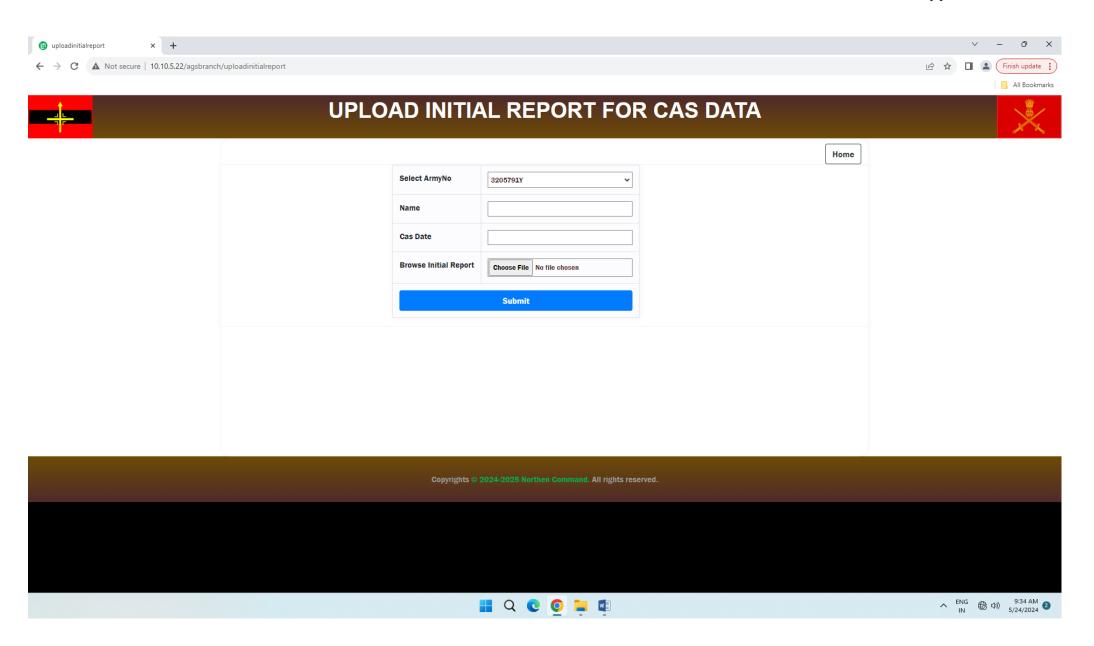


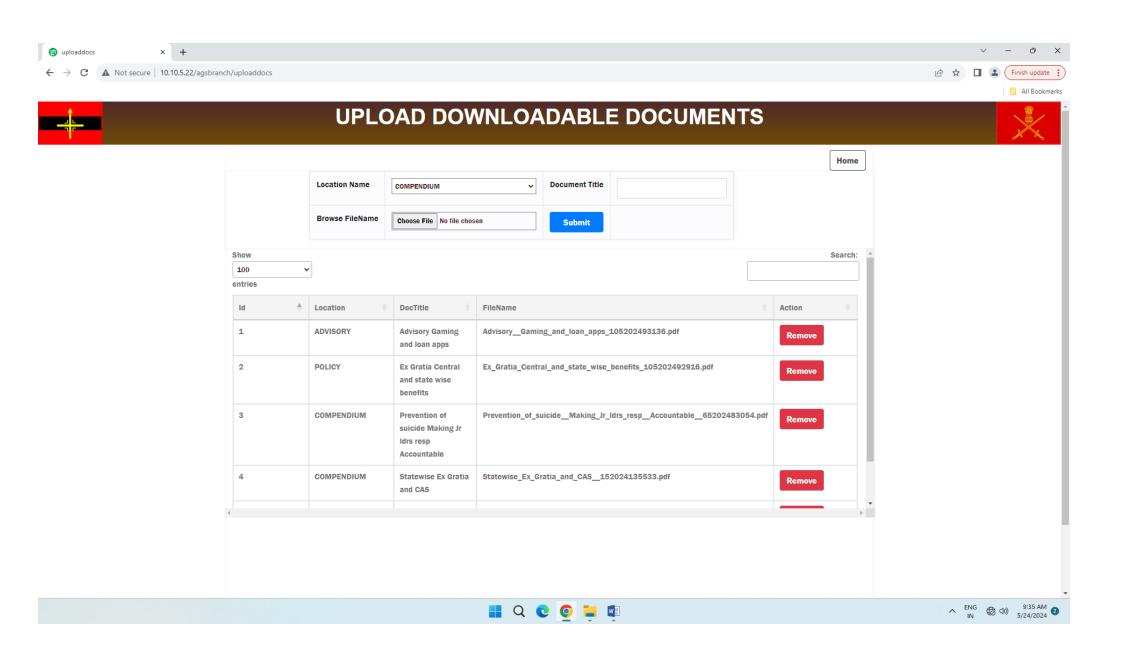




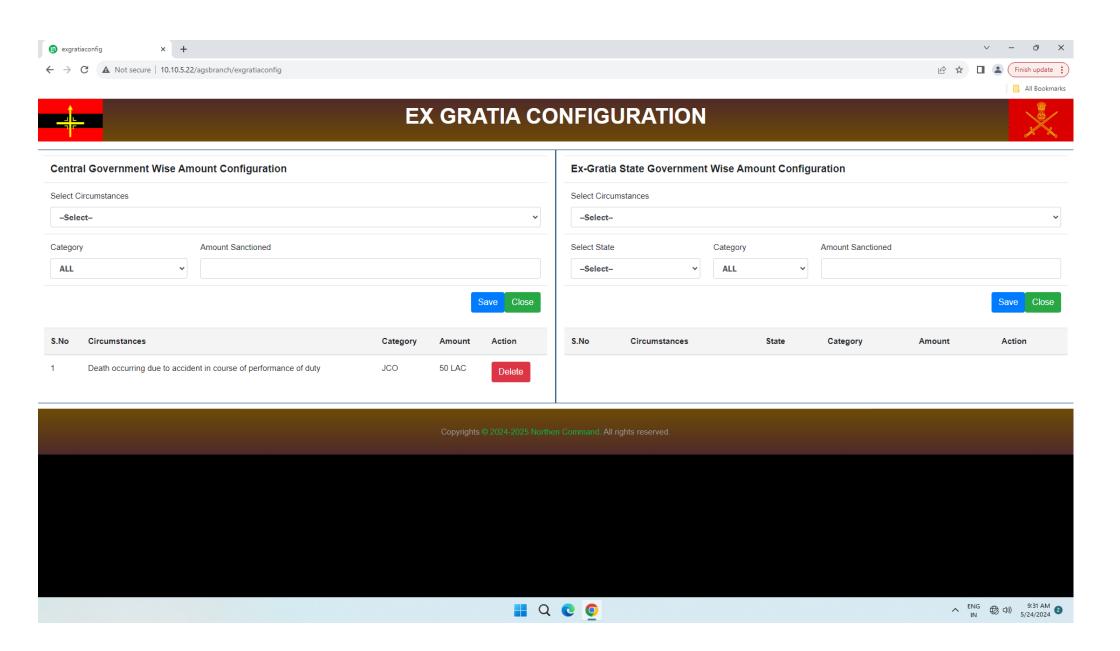


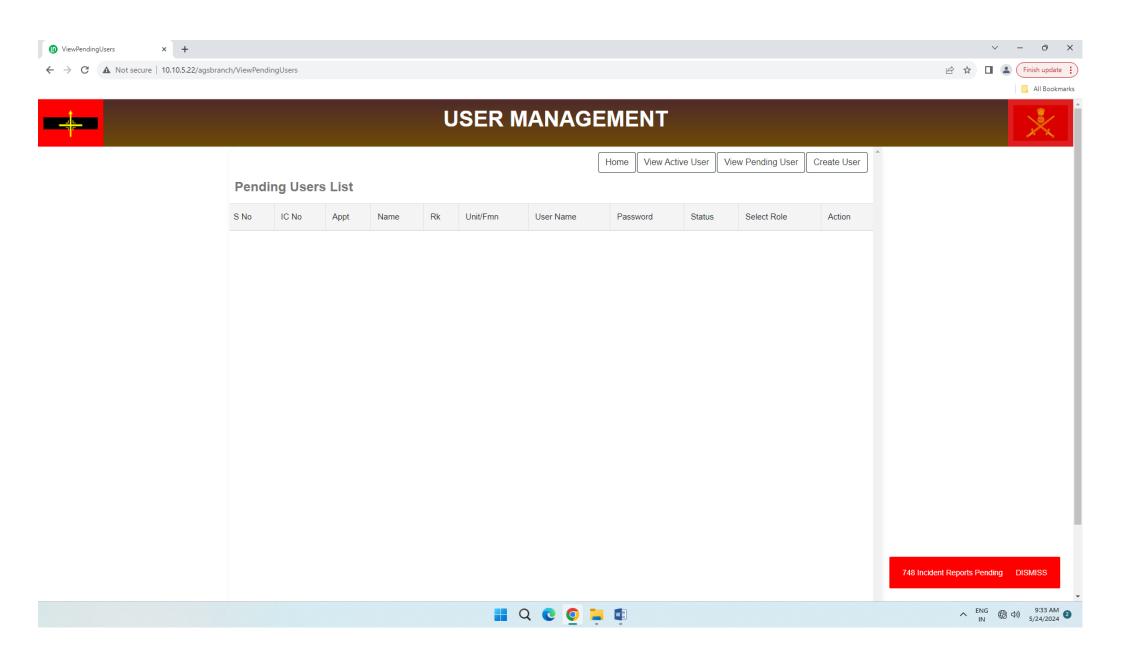
Annx-I to Appx Contd/-





Annx-I to Appx Contd/-





Annx-II to Appx

(Ref Ser No 10 to Appx of HQ Northern Comd letter No 0407005P/ VIMOCHAN SW/24 dt 05 Jun 24)

CERTIFICATE OF ENDORSEMENT BY HEAD OF BRANCH

The requirement to in-house devp application software for automation of AG's Branch, HQ Northern Comd is hereby endorsed.

Station: C/o 56 APO

Dated: 05 Jun 2024

Sd/-x-x-x-x (Bimal Monga) Maj Gen

MG-ic-Adm

HQ Northern Comd