

SLNO	MANDATORY DETAILS	
1	Name of the Project	Cadet Expenditure Management System(CEMS)
2	Name of sponsor	G.S.RAGHAVAN PAO
3	Type of SW	Bespoke
4	Brief justification/endorsement of requirement of development of SW appl.	<ul style="list-style-type: none"> • Officers should be able to check the vendor bill status, and officer cadets should have access to their balance of expenditure account. • The old system required extensive manual work and a larger workforce, making it time-consuming to handle the huge number of cadets in the academy. Therefore, it is proposed to develop an automated system to streamline the process.
5	Aim, Scope and purpose incl utility, beneficiaries and tgt users	The Accounts Section, Officers, and Officer Cadets will be the beneficiaries of the new system, which will automate the legacy IRLA (Individual Running Ledger Account) system .
6	To be hosted on internet/ADN with brief justification	ADN (LAN NETWORK)
7	Being devp in house or through IT funds	In House Development
8	Usability of proposed appls by other arms/services/org/est.	The software will initially be implemented at OTA Chennai and can be extended for use at OTA Gaya, IMA Dehradun, and other training institutes if required.
9	HW and IT infrastructure reqd in the form of virtual machines at Data centre	Windows Server and LAN network
10*	Brief details of content of the proposed Sw appl.	<p>a. Cadet Details – Includes personal information, course details.</p> <p>b. Vendor Details – Covers vendor information, including bank details for transactions.</p> <p>c. Vendor Bill & Payment Details – Records of vendor bills, payment status, and cheque details.</p> <p>d. Orders/Circulars for Cadets – Any official orders or circulars relevant to cadets.</p>
11	Endorsement by Head of Br/Svc/FMn	
12	Details of User base	This project will be used by Cadet Expenditure Task holder, Officers of Account section, BN/Q Branch officers and Cadets.

13	Envisaged cost of entire project incl licence fees and maint	This project was developed by open source software. Only Windows server should be provided.
14	Projected date of completion including maj timelines	Already development completed
15	Brief details of Sw platform and tech stack proposed for devp of appl incl op sys dependencies	1.Wamp Server Version 2.2 (Open Source) 2.Mysql Administrator (Open Source) 3.Notepad ++
16	Brief details of proposed network and bandwidth requirements	Lan network and 100Mbps.
17	Brief details of OS & Sys software requirements	Windows OS, WAMP server Version 2.2,Mysql Administrator, Notepad++
18	Brief details of proposed data security measures incl back up of data	Daily back up will be done through Mysql Administrator and back up will be stored in Cloud space provided locally.
19	Brief details of propped Database Engine to be used in the Appl	WAMP Server-MYSQL engine.
20	Details of SW architecture and COTS SW proposed to be utilized	Attached in Annexure
21	Details of proposed architecture –Centralised/Federated/hybrid	Centralised
22	Brief details of proposed utilization of public key infra and iden and access mgt	-
23	Technology dependencies(if any)	-
24	Database Reqmts.	Mysql of WAMP
25	Enhancement /upgradation(incl patch mgt/sw updt procedure and mechanism	The system includes all necessary provisions in the front-end interface . Any future modifications will be handled by the technical people of OTA Chennai, with support from PAO as required.
26	Details of licensing (if any)	This software was developed by open sourced items.

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S No	Pre Devp-Stage – To be submitted for grant of IPA	Response of Stakeholder
Sigs-7		
1.	Hardware Reqmt. To be rationalized by developer with supported load calculation.	
2.	Bandwidth Reqmt. No of concurrent users access the appl on ADN to be highlighted, Common user bandwidth to be utilized no dedicated bandwidth to be provided.	
3.	Encryption. IACA SSL cert to be incorporated for secure HTTPS connection (TLS 1.3 should be impl).	
4.	IAM. Appl developer to design and devp the apps for integ with IAM (SAML 2.0 needs to be followed).	
5.	Ports. 443 port to be used for hosting, any addl port reqd should be justified.	
6.	Software. Sponsor Dte to provn for licensed OS and other reqd softwares for the appl.	
ACG		
1.	Advisory on Appl Security: Evolving (URD) User Requirement Document (Hosted at ACG Website - Web/AppI Devp - Test & Eval Advisories).	
2.	Impl of Secure Coding Prac in IA : HCL AppScan VS CodeSweep (ACG letter No B/51106/ArCyGp/T-3/T&E dt 04 Aug 23).	
3.	Advisory on Cyber Security Parameters for Websites hosted within ADN (Hosted at ACG Website - Web/AppI Devp - Test & Eval Advisories).	
4.	Guidelines for Indian Govt Websites (GIGW 3.0).	
ASDC		
1.	Platform to be used - check and render advice on Long Term Sp incl the End of Life.	
2.	Database to be used – check and render advice on Long Term Sp incl the End of Life.	
3.	Software architecture and COTS Sw dependencies – native/webbased/centralized/ decentralized, offline/online mode, Selection criteria of COTS Sw etc.	
4.	Integration reqmt with other Sw (online/ offline) – recommend apps alongwith the requisite formats of exch.	
5.	Usability of Sw by other arms/services/fmns/orgs – advise sponsor fm scalability pt of view.	

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S No	Post Devp Stage – To be submitted for vetting of Sw appl.	Response of Stakeholder
Sigs-7		
1.	<u>OS & Software.</u> (a) OS and softwares used in appl should be activated (licensed) if applicable. (b) The OS and the softwares used should not be outdated. (c) The appl should not use vulnerable scripts and libraries.	
2.	<u>Hardware Resources.</u> (a) The hardware resource used by the appl should be justified by the sponsor Dte with valid calculations. (b) Stress testing of the appl is done with the anticipated concurrent users to check the hardware utilization of the appl. (c) A website with up to 1000 concurrent users should not consume more than 8 CPU cores and 16 GB RAM. (d) A relational database server (Mysql/MSsql/Postgres) with 1000 concurrent users should not consume more than 24 CPU and 48 GB RAM. (e) A web appl server with 1000 concurrent users should not consume more than 16 CPU and 32 GB RAM. (f) A Geospatial server (GIS) with 1000 concurrent users should not consume more than 32 CPU and 64 GB RAM.	
3.	<u>Compliance.</u> (a) Websites should follow GISW present. (b) All the downloadable data (PDF) should be watermarked. (c) <u>Links</u> (i) No broken links to be present. (ii) All the websites / appl linked in the page should be vetted. (iii) Only whitelisted SW (as per ACG guidelines) links to be provided for download. (d) Metatags should be enabled. (e) No direct streaming of Video / Audio.	
4.	<u>IAM.</u> (a) IAM integ to be completed (SAML 2.0). (b) Encrypted login and logout to be implemented. (c) User list (usernames in domain) to be on-boarded should be shared with AHCC. (d) Two factor authentications if reqd should be impl with IACA DSC token.	

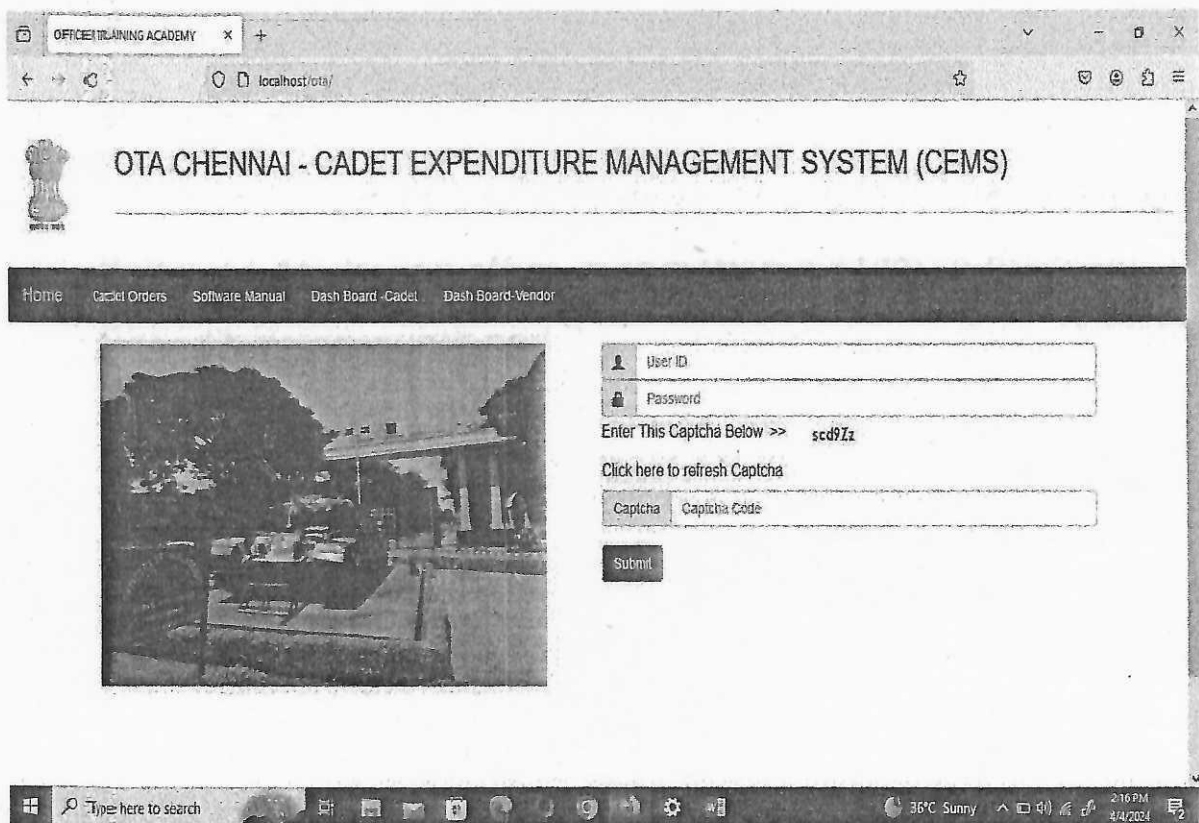
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5.	<u>Deployment Arch.</u> (a) Sponsor Dte to give a pstrn explaining the entire workflow on the sw appl along with its detailed dply architecture. (b) Sponsor Dte / developer to explain all the intended functionalities and features of the appl. (c) Clarify any ambiguities or discrepancies with the devp team before commencing the vetting process. (d) Strict version control to be adhered during the iterative process of vetting. (e) The apps requiring PKI services, must have inbuilt OSCP and CRL protocols for certificate validation.	
6.	<u>Performance / Stability Testing.</u> (a) Appl / Website initial loading on the browser should not be more than 4 MB (screenshot att at Appx A). (b) The max response time for the appl / website should not be more than 5 seconds. (c) The appl should not crash when load tested with anticipated concurrent users.	
7.	<u>Functional Testing.</u> (a) Perform testing of each indl function and feature of the web appl. (b) Validate input fields, forms, button navigate and interactive elements. (c) Verify proper data validation, error msgs and expected outcomes.	
8.	<u>Compatibility Testing.</u> (a) Should be compatible with older supported versions of browsers (chrome / edge / firefox). (b) Shuld be compatible with different versions of third-party plugins or framework. (c) Regression Testing – Retest previously identified issues after fixes have been implemented. (d) Ensure that fixes have not introduced new problems or unintended side effects.	
9.	<u>Encryption.</u> IACA SSL cert to be incorporated for secure HTTPS connection (TLS 1.3 or latest should be impl).	
10.	<u>Forms Regd.</u> GIGW cert, DNS regn form, DGMI (MI-11) content vetting form, Watermarking cert, SSL regn and SRDP regn form are rqd to be submitted to DG Sigs for hosting on ADN.	
<u>ACG</u>		
1.	Advisory on Single Window Clearance Initiative (ACG letter ref B/51106/ArCyGp/T-3/T&E/Adv1 dt 24 Aug 2023).	

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2.	Advisory on Tech Vetting for Whitelisting of Sw for AND Dply (DG Sigs letter ref B/46850/IT/Sigs 7 (a) dt 03 Mar 2022).	
3.	User Friendly Guidelines for Expediting Vetting if Websites/ Web Appl (Hosted at ACG Website - Web/Appl Devp - Test & Eval Advisories).	
4.	CERT Advisory No 08/2023 on conduct of Vulnerability Analysis of Sw of IA by CERT-IN Empanelled Firms (Hosted at ACG Website - Web/Appl Devp - Test & Eval Advisories).	
5.	Advisory No 12-2016 on Hardening of Web Server, How to make VDI for Web Testing, Web Testing Tool, Patch Mgt and OS (Hosted at ACG Website - Web/Appl Devp - Test & Eval Advisories).	
6.	Further, for the better transparency and user awareness, real-time appl vetting status is hosted on ACG Website (ACG Website - Web/ Appl Devp - Web/Appl Vetting Status).	
7.	CERT Advisory No 13/2023 on API Security.	
<u>DDGIT</u>		
1.	Fwd VDI of final Sw appl.	
2.	Fwd data dictionary of data and meta data.	
3.	Obtain Whitelisting Cert.	

OFFICERS TRAINING ACADEMY, CHENNAI



OFFICERS TRAINING ACADEMY

localhost/ota/

OTA CHENNAI - CADET EXPENDITURE MANAGEMENT SYSTEM (CEMS)

Home Cadet Orders Software Manual Dash Board - Cadet Dash Board-Vendor

User ID

Password

Enter This Captcha Below >> scd9Zz

Click here to refresh Captcha

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Submit

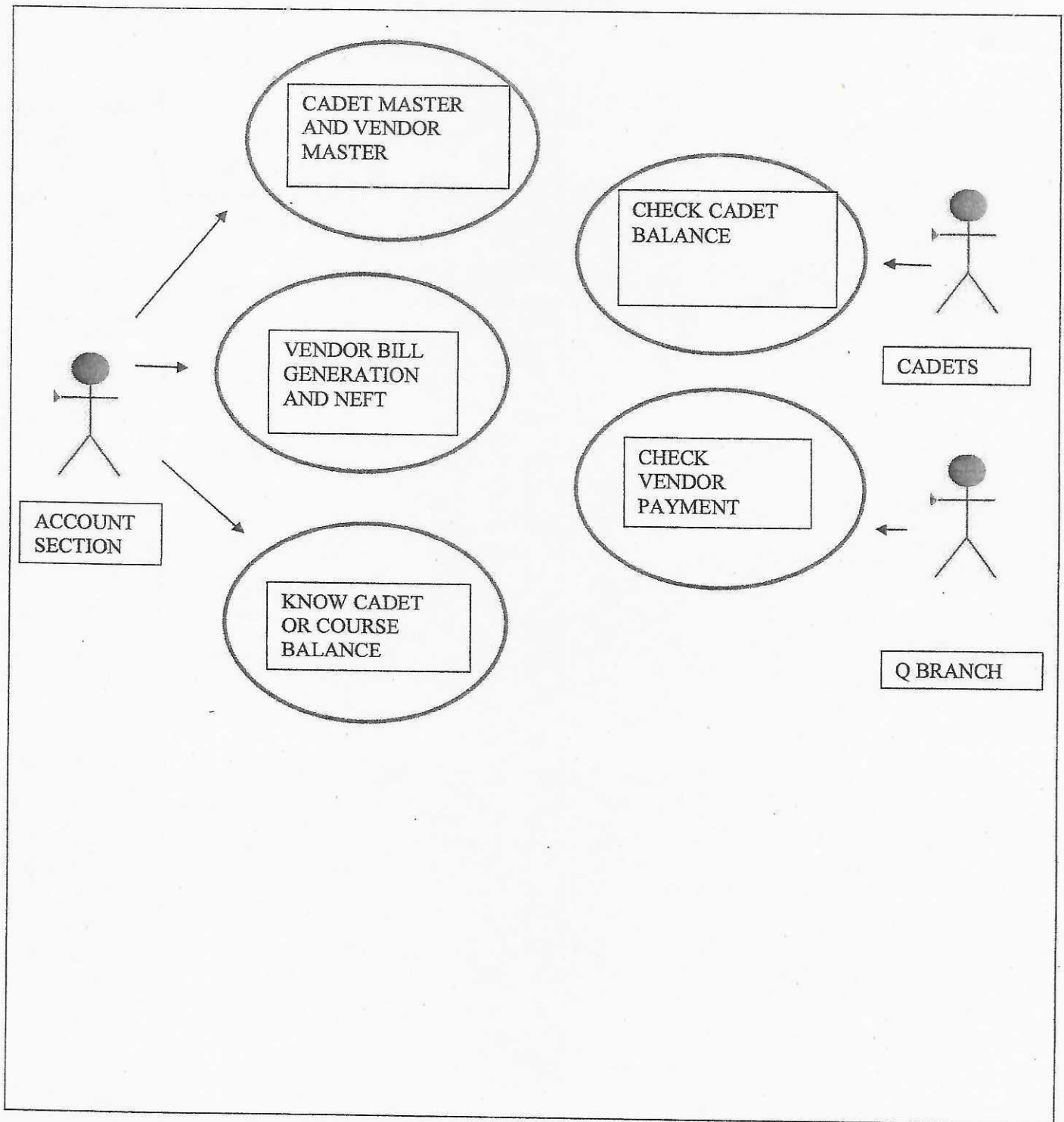
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Project Title: CADET EXPENDITURE MANAGEMENT SYSTEM

Developed By: Officers Training Academy. Chennai.

2.0. Overall Description

2.1 System Environment



System Work Data Flow Diagram

System Details Diagram:

