**Niramaya**

**Features PRD**

**E-credentials Module**

**V1**

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# Key Terms

* **Candidate**- An individual who is the owner/holder of credentials
* **Credential** - Credential refers to an independent, traceable record of candidate achievements (academic qualification, work experience) or attributes (institute they are enrolled in, workplace)
* **Issuing Entity** - A registered entity that can issue credential(s) to candidates
* **Credential Issuer** - An individual (faculty, regulator, HR Head) within an issuing entity that digitally signs the credential being issued
* **Verifier** - A third party who is able to view verified credentials of a candidate upon approval of candidate consent
* **Learner Wallet** - A wallet that allows candidates to store and view their ULP credentials as well as share them with verifiers as presentations (e.g., DigiLocker)

# Overall Purpose and Vision

The scope of this document is to define the purpose and functionality of the verifiable resume module enabling users to hold credentials or issue and verify credentials of a candidate. These credentials may include but are not limited to registration certificate, assessments certificates, workplace experience certificate and/or additional certifications.

# Project scope

The module will enable a user to hold, issue and verify credentials, which can be presented in an e-resume format, and shared via links and/or downloads. This would aid users in that:

1. Candidates will have access to all their essential credentials in verifiable format on one platform, to share as required
2. Nursing and paramedical institutes, and hospitals who employ candidates will be able to issue and verify credentials of candidates easily on the platform, thus saving time and resources
3. UP SMF will be able to easily issue and verify credentials of candidates, and maintain longitudinal data on career trajectory of AHPs in the state for formulation of targeted interventions

# 3. Noun verbs

1. Verifiable credentials: view (candidate, admin, institute, workplace), issue (admin, institute, workplace), claim (candidate), download (candidate), verify (admin, institute, workplace)
2. Claim for credential: submit (candidate), attest (admin, institute, workplace)
3. E-resume: view (candidate, admin, institute, workplace), download (candidate), share (candidate), verify (admin, institute, workplace)

# 4. Overview of use case and interface requirements

The e-credentials module will have 4 roles namely;

| **#** | **Role** | **Entities** |
| --- | --- | --- |
| 1 | Holder | Candidate |
| 2 | Issuer | Regulator, Faculty, HR Head |
| 3 | Issuing entity | Admin, Institutes, Workplace |
| 4 | Verifier | Admin, Institutes, Workplace |

Based on the requirements, some of the use cases for users are listed below

| **S.No** | **Use Case** | **Description** | **User Role** |
| --- | --- | --- | --- |
| 1 | Obtain verifiable credentials for registration, competency based assessment scores with skill assessment video, work experience | As a candidate, I am able to view and download my verifiable credentials including registration certificate, competency based assessment certificate (with linked skill assessment video), work experience letter, additional certifications. | Holder |
| 2 | Submit claims for registration/work experience/ certifications for attestation by issuer | As a candidate, I am able to submit claims for a registration certificate, work experience letter and/or additional certifications from a relevant registered entity. | Holder |
| 3 | Obtain and share credentials in e-resume format | As a candidate, I am able to view my verifiable credentials presented as an e-resume.  I can also download this verifiable e-resume, obtain its shareable link and/or share it with an institute or workplace in response to calls for placement. | Holder |
| 4 | Issue registration, competency score, work experience credentials to candidates | As a regulator and/or assessment admin, I am able to issue registration certificates, competency based assessment certificates (with linked skill assessment videos) of candidates.  As a faculty or HR Head, I am able to issue work experience certificates and/or additional training certifications to candidates. | Issuer |
| 5 | Attest claim requests of candidates for registration/work experience | As an admin, I am able to attest a candidate's claims to a registration certificate.  As an institute/workplace, I am able to attest a candidate’s claim that they are/were my employee, or received a certification from my institution. | Issuer |
| 6 | Review credentials issued by these issuers in an issuing entity | As an admin, institute or workplace, I can appoint Issuers in my organisation  As an admin, institute or workplace, I can review credentials issued to candidates by issuer in my organisation | Issuing Entity |
| 7 | View credentials of candidates through search function/ invitation | As an admin/institute/workplace, I am able to see a candidate’s credentials when the candidate has shared them with me. | Verifier |
| 8 | Verify credentials of candidates by scanning embedded QR Code/ link | As an admin/institute/workplace, I am able to verify a candidate’s credentials by scanning embedded QR code/ clicking on embedded link which takes me to the original digital copy of the credentials with details of claimant, issuer and dates of claim and issue. | Verifier |
| 9 | Define credential schema through backend and frontend UI | As admin/ issuing entity, I am able to define schemas for different credentials, which will be used by issuers to generate credentials | Admin |
| 10 | E-cred module data emitted for insights generation | As an admin I am able to get data insights from dashboards built using data emitted by issued E-credentials | Admin |

# 5. Use case details by user

# A. Holder

### **Use case 1: Obtain verifiable credentials**

1. Candidate logs onto the platform with a unique ID and password
2. Candidate is able to see an option called 'My Profile' (updating editable fields on first log-in will be mandatory). He clicks on this option to view own profile
3. The candidate’s ‘My Profile’ screen will be divided into sections like ‘Personal Details’ (including his name, contact details, registration ID, etc.), ‘Courses Completed’ (including titles of courses and percentage of their completion), ‘Learners Passbook’ (including information on competency levels achieved) and ‘Verifiable Credentials’ (including credentials like registration certificate, degree/diploma certificate, competency based assessment certificates, skill assessment videos, additional certification, etc.)
4. Candidate is able to scroll down to the section called 'Verifiable Credentials'
5. Candidate is able to access all his credentials, arranged in following categories:
6. Registration Certificate
7. Degree/Diploma Certificate
8. Competency Based Assessment Certificate
9. Work Experience Certificate
10. Additional Certificates
11. There are options of ‘View’ and ‘Download’ available next to each credential

### **Use case 2: Submit claims for registration/work experience for attestation by issuer**

1. There is an option for ‘Edit Details’ in the section on ‘Verifiable Credentials’ that a candidate can select
2. After selecting that option, the candidate is taken to a screen with data fields for the different categories of verifiable credentials available
3. Fields for which data already exists for the candidate will appear pre-populated
4. The candidate can select the option ‘Request Edit’ for credentials against which fields appear pre-populated.
5. The candidate can select the option to add a credential against fields which are not pre-populated or may require multiple credentials (like 'work experience' or 'additional certifications')
6. The candidate fills the required information for relevant credentials, like additional work experience including name of workplace, duration of employment, job post and description of work
7. The candidate is required to upload at least one document as proof to support their claim. The required documents may be any of the following:
8. **Registration Certificate**- Exam marksheet to prove candidate has required qualifications  
   - Registration certificate of nursing council of a different state
9. **Work Experience Letter**- Offer letter  
   - Pay slip of three months  
   - Bank account statements of three months
10. **Additional Certifications**- Exam marksheet/institute certificate to prove candidate passed certificate course
11. Once all mandatory fields are filled, an option to click on ‘Submit for Attestation’ will appear, which the candidate will select.
12. For credentials which are already submitted for attestation, the candidate can see status as 'Pending', 'Approved' or 'Rejected' against each line item.
13. In case of rejection, the candidate will be able to view the reason for rejection and submit another claim after incorporating the recommended changes.

### **Use case 3: Obtain and share credentials in e-resume format**

1. In the section on ‘Verifiable Credentials’, the candidate selects an option called ‘View E-Resume’ to view compiled credentials in a resume format
2. Once the candidate selects that option, he sees his E-resume which has all his attested credentials as links that can be clicked to view the original digital credentials
3. The candidate will get option to select the credentials he wants to include in his e-resume
4. The E-resume itself has an embedded QR Code and a link which can be scanned/clicked to view the original resume on the platform
5. The candidate can opt to ‘Share’ the e-resume either by copying a shareable link, or emailing it to the relevant address by entering the required email id. The candidate can also ‘Download’ the e-resume as a PDF document
6. When applying for jobs, the candidate will have the option to share their e-resume with a job portal, after providing consent through an OTP or unique password

## B. Issuer

### **Use case 4: Issue credentials to candidates**

1. Regulator, faculty/ HR Head from an Admin/institute/workplace logs onto the platform with a unique username and password
2. They are able to see three options on their screen, namely ‘Issue credentials’, ‘Attest Claim’ and ‘View Candidate Credentials’.
3. They click on ‘Issue certificates’ and see one or more of four options, namely ‘Issue Registration Certificate’, ‘Issue Competency Based Assessment Certificate’, ‘Issue Work Experience Certificate’ and ‘Issue Additional Certification’.
4. **Registration Certificate**

* Admin issuer selects option called 'Issue Registration Certificate'
* Admin issuer enters data of students against prescribed schema
* Admin issuer bulk uploads information of recent graduates to whom certificates have to be issued
* Admin issuer clicks on 'Issue Certificate' to issue verifiable credential against each candidate's unique ID

1. **Competency Assessment Certificate + Skill Video**

* Assessment Admin issuer clicks on option called ‘Issue Competency Based Assessment Certificate’
* Assessment Admin issuer reviews PIAA Nodal report/approval on concluded assessment session. There is an option of ‘Issue Certificate’ next to each approved assessment session
* Assessment Admin issuer selects option called 'Issue Certificate' to approve a candidate's assessment & issue the certificate
* The Assessment Admin issuer can approve all assessments for a candidate visible on the screen in one go through the option ‘Issue Certificates to All’
* Assessment Admin issuer views the skill assessment video of the candidate, and clicks on 'Approve Skill Assessment Video’
* When a skill assessment video is approved against a candidate, its link gets attached to the candidates’ relevant Competency based Assessment Certificate

1. **Work Experience Certificate**

* Institute/workplace issuer selects option called 'Issue Work Experience Certificate'
* Institute/workplace issuer enters work experience related information on candidates who have to be issued certificates against their unique ID
* Institute/workplace issuer selects option called 'Issue Certificate' to issue the verifiable work experience credential

1. **Additional Certification**

* Institute/workplace issuer selects option called 'Issue Additional Certification'
* Issuer enters details of the certification and information of candidate as defined in certificate schema
* Issuer selects option ‘Issue Certificate’ to issue the certification to the candidate

### **Use case 5: Attest claim requests of candidates**

1. Admin/institute/workplace issuer logs onto the platform with a unique username and password
2. They are able to see three options on their screen namely, ‘Issue Certificate’, ‘Attest Claim’ and ‘View Candidate Credentials’.
3. They click on ‘Attest Claim’ and are able to see all pending claims organised in categories, namely ‘Registration Certificate', ‘Work Experience Certificate’, ‘Additional Certifications’.
4. Clicking on any of the claims takes them to a screen with detailed information submitted by the candidate as part of their claim for any new credential and/or edits to pre-existing credentials
5. Additionally, admin/institute/workplace issuer receives notification that a candidate has submitted a claim regarding registration certificate/work experience certificate/ additional certifications, and clicking on it takes them to the screen with the candidate’s information
6. After reviewing the detailed information submitted by the candidate as part of his/her claim, the issuer may ‘Approve’ or ‘Reject’ the claim.
7. While rejecting, it would be mandatory to specify the reason for rejection

## C. Issuing Entity

### **Use case 6: Review credentials issued by an issuer**

1. Admin/institute/workplace logs onto the platform with a unique ID and password
2. They are able to see four options namely, ‘Appoint Issuers’, ‘Review Issued Credentials’, ‘Define Credential Schema’, and ‘View Candidate Credentials’
3. They click on ‘Appoint Issuers’ and are taken to a screen where they are able to invite issuers to start issuing credentials on the entity’s behalf
4. They click on ‘Review Issued Credentials’ and are taken to a screen with relevant tabs namely, ‘Registration Certificate’, ‘Competency based Assessment Certificate’, Work Experience Certificate’ and ‘Additional Certificates’
5. Clicking on any one of these options, shows the user a filterable and searchable list of credentials issued by issuers appointed by the entity, along with their status
6. The admin/institute/workplace can click on any issued credential to review details of candidate and issuer, and approve/reject it

## D. Verifier

### **Use case 7: View credentials of candidates through search function/invitation**

1. Admin/institute/workplace (issuer and issuing entity) logs onto the platform with a unique username and password
2. They click on ‘View Candidate Credentials’ and are taken to a screen with a search box asking for candidate’s name and registration number/unique ID
3. They enter the required details and are able to view the candidate’s e-resume with their shared credentials
4. Alternatively, they can see a candidate’s credentials by clicking on the e-resume link that a candidate may have shared with them, or on the platform itself (via say a placements platform)

### **Use case 8: Verify credentials of candidates by scanning embedded QR Code/clicking on embedded link**

1. All downloaded credentials will have a QR code and link embedded in them, scanning/ clicking on which will lead the admin/institute/workplace to the original digital copy of the credential stored on the platform
2. On the original digital copy of the e-resume, the admin/institute/workplace will be able to click on any line item to view details of the credential, like name of the issuer, date of issue, date and proof of claim, etc.

### **Use case 9: Define credential schema through backend and frontend UI**

1. As admin/institute/workplace log-in using unique log-in and password
2. They are able to see four options namely, ‘Appoint Issuers’, ‘Review Issued Credentials’, ‘Define Credential Schema’, and ‘View Candidate Credentials’
3. They click on ‘Define Credential Schema’, and are directed to a screen where they can create/edit/delete/upload schema of required credential type
4. Institutes and Workplaces can only define schema of credentials pertaining to ‘Additional Certifications’
5. Once they click on ‘Submit’ these schema go live for relevant credential and can be used by issuers for issuing credentials

### **Use case 10: E-cred module data emitted for insights generation**

1. Admin logs onto the platform using unique ID and password
2. They click on ‘View Candidate Credentials’, and are taken to a screen which has emitted data points like number of registered candidates, drop-out rates in institutes, unemployment rate among registered candidates, competency levels across candidates and so on.
3. This data can be read through heat maps, longitudinal views etc.