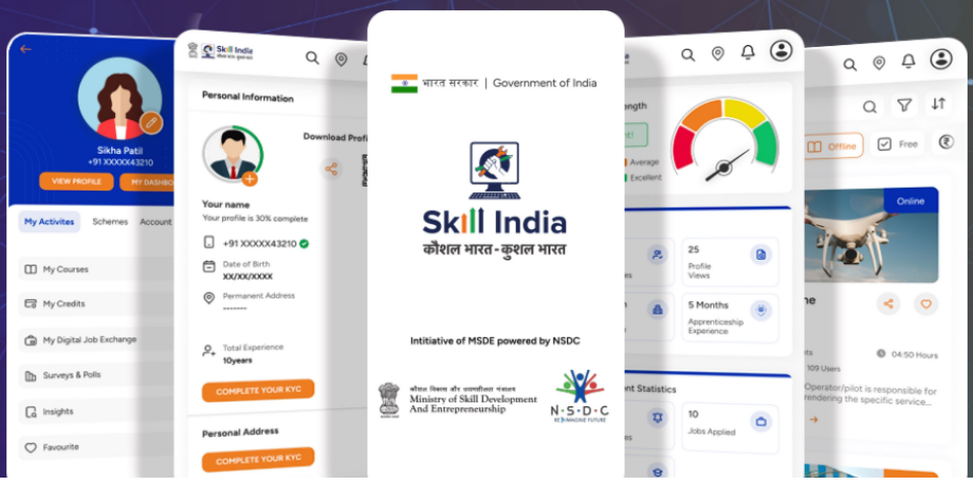
DRC SYSTEMS

How did DRC Systems transform the concept of skilling & upskilling by creating a robust platform?



Project Overview

The client wanted to build a responsive and user-friendly digital platform to transform skilling, reskilling, and upskilling initiatives across the country. They wanted to build a platform that provided skills beyond traditional learning by combining online courses, multilingual support, AI-based recommendations, and many other features. The final product was built to improve skill development while bridging the gap between education and employment opportunities, making quality learning accessible to all.

Key Objectives

The primary purpose of the client was to change their course creation process quickly, more efficiently, and more engagingly for the learners. Let us look at the different objectives they wanted to achieve:

Skill development: Provide skilling, upskilling, and reskilling opportunities for users nationwide.

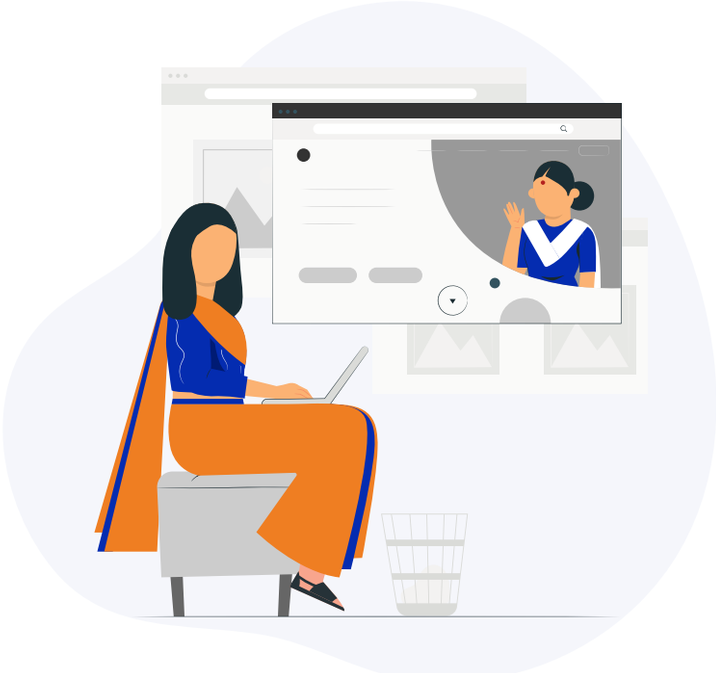
Job connectivity: Provide a job marketplace to network skilled workers and learners with employment opportunities.

Secure access: Offer verified and trusted access with national identity-based registration.

Multi-language support: Due to the different languages spoken nationwide, courses were to be made accessible in these different languages for a wider reach.

Data-based insights: Provide analytics for decision-makers to improve any learning outcomes.

Multi-device access: Guarantee a smooth learning experience through



web and mobile platforms.

Key Challenges

Some of the challenges that we faced while developing what the client required include:

Project expansion: Building a platform that can manage millions of users with high upkeep activity.

Integration difficulties: Integrating different systems, including job boards, AI recommendation engines, and analytics tools.

High security: Since it is a national platform, implementing measures for secure access with mobile OTP and national identity-based registration was required.

Multilingual support: Delivering content in 20+ languages without sacrificing usage was a difficult task to pull off.

Content standardization: Managing course content, assessments, and SCORM compliance across different platforms and formats.

Solutions Provided

DRC Systems implemented a digital learning platform that helps users take skilling, upskilling, and reskilling courses from anywhere at any time.

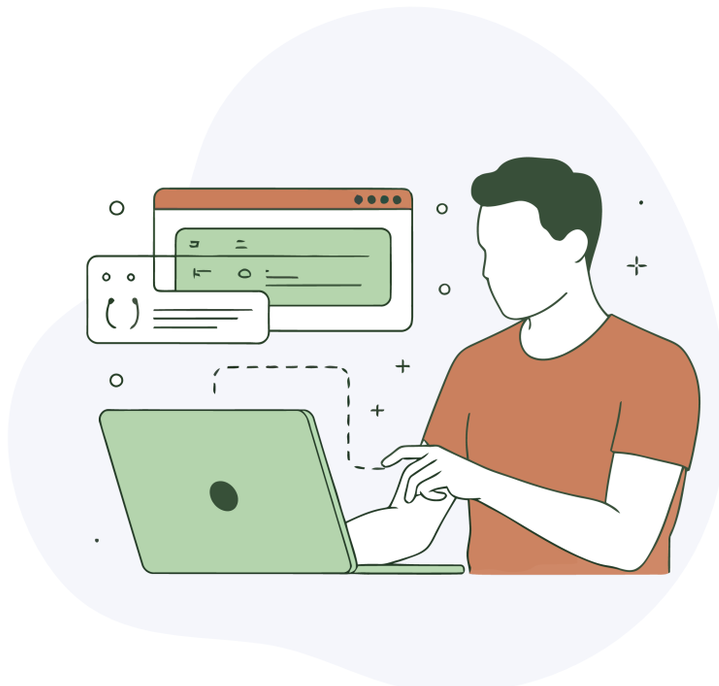
The platform has achieved 5.5 million registrations and 1 million successful enrollments.

It integrates a job board where opportunities are listed, functioning as a marketplace connecting job seekers and job providers with specialized skills.

The platform includes an AI recommendation engine that suggests courses and opportunities based on a user's education, location, and demand trends.

A WhatsApp chatbot enables users to ask questions, explore the platform, and find relevant courses, content, and job opportunities.

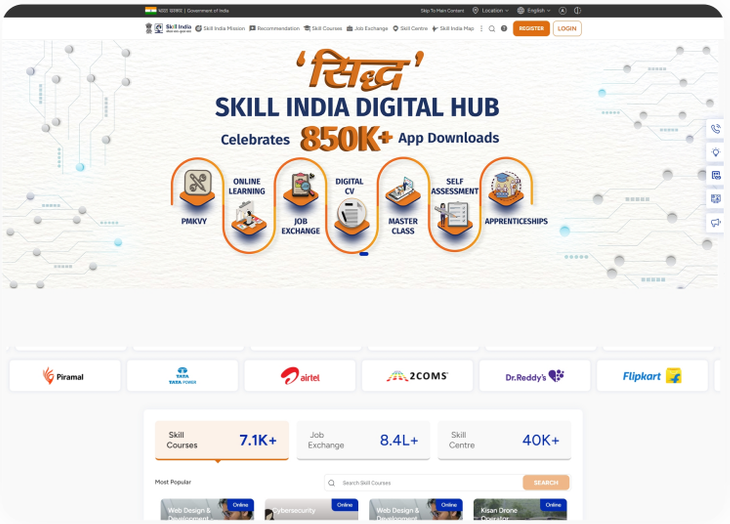
Analytical reporting tools assist decision-makers in leveraging insights to improve the quality and reach of skilling initiatives across the country.



Technology stack

FRONTEND	EXTERNAL SERVICES	BACKEND	DATABASES	MOBILE APP
React JS, HTML5, CSS3, JavaScript, Mako, jQuery, BackboneJS	**Celery, Elasticsearch, Redis, Caddy Server, uWSGI**	**Python, Django, ROR**	**MongoDB, MySQL**	**iOS and Android, React Native**

Features

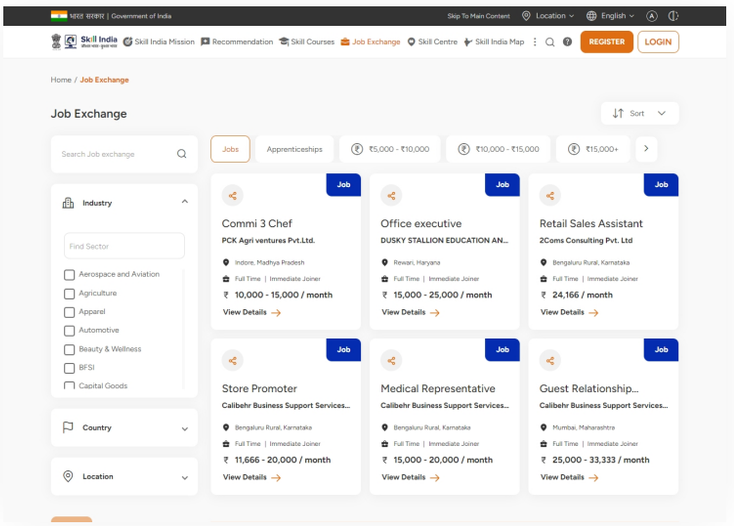


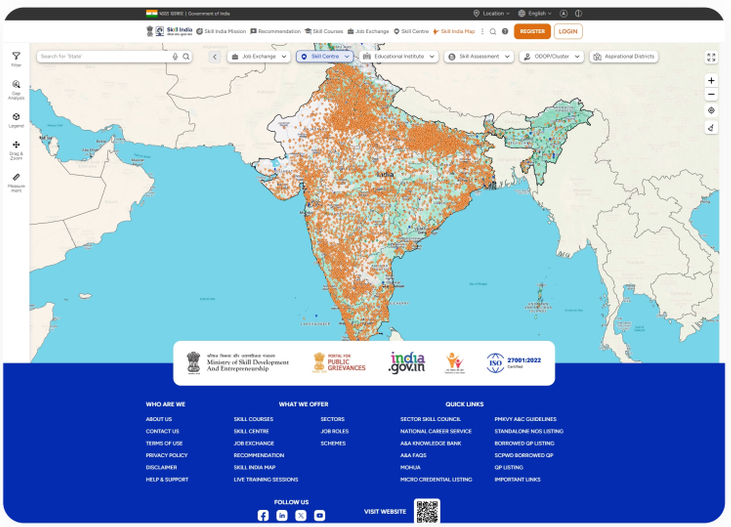
Online Learning – Skilling, Upskilling & Reskilling

The platform enables users to earn new skills, upskills and reskill themselves helping for better employment and skilled resources in the country.

Job board

Post Skilling the major activity is to get a job for which skilling is meant for and this job board solves both the problems so it works as a marketplace between recruiters and candidates so both find the best match for each other.



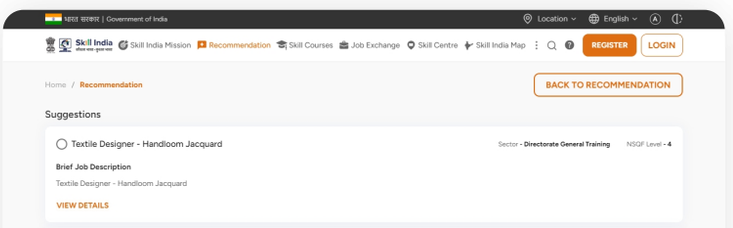


GIS

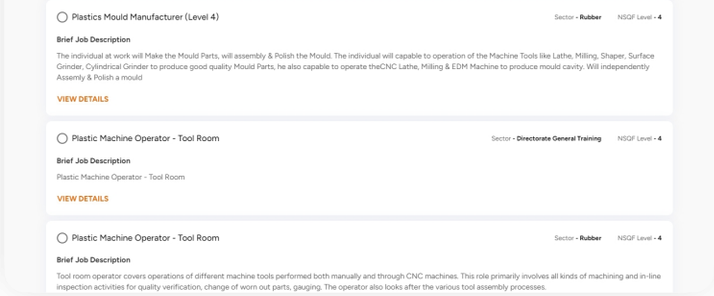
GIS is enabled to see graphically various skills centers available, employers available, Institutes, Universities, Trainers etc.

AI Based recommendation engine

This helps to recommend users/learners based on their demographics what skilling they should do for better opportunities to increase



their income or get job based on the questions asked and interest is known and recommendations are given.

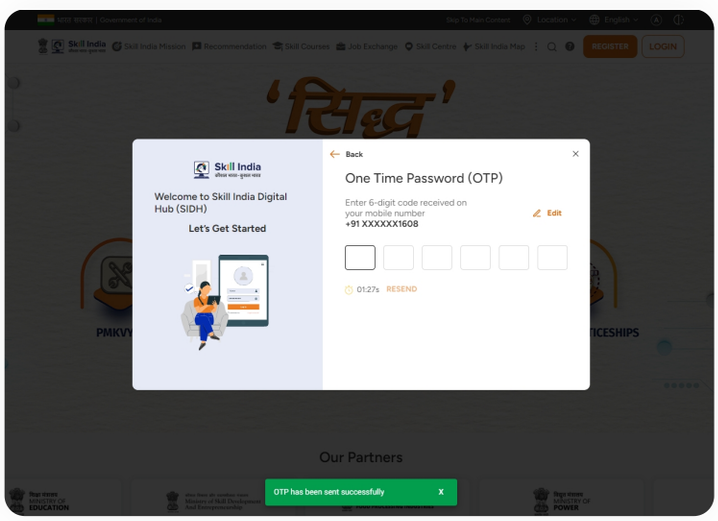


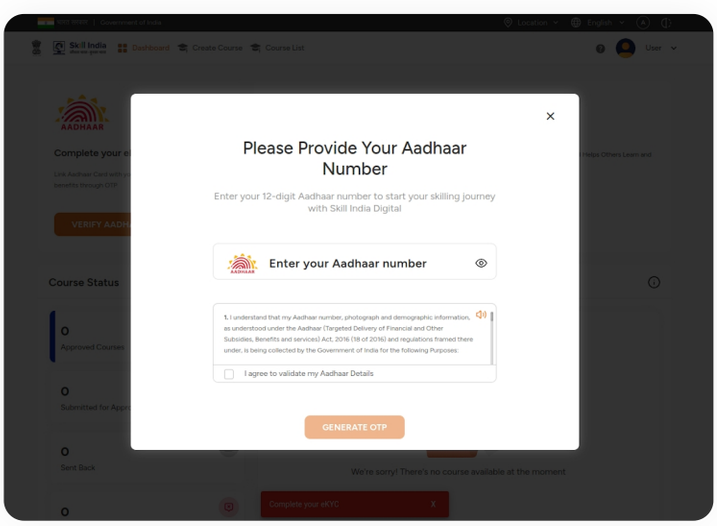
Multilingual

This has more then 20 languages and we can add more languages easily so users can learn in their own language.

Mobile OTP for authentication

An otp is sent for the authentication of users on their mobile number and this mobile number has to be same as on national identity.



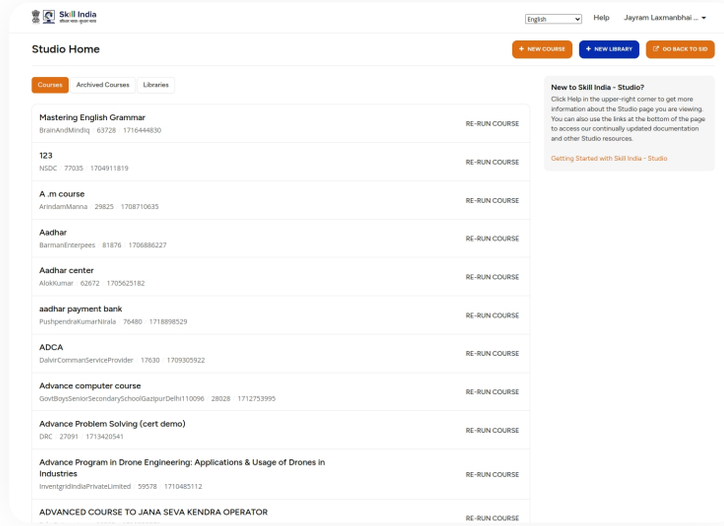


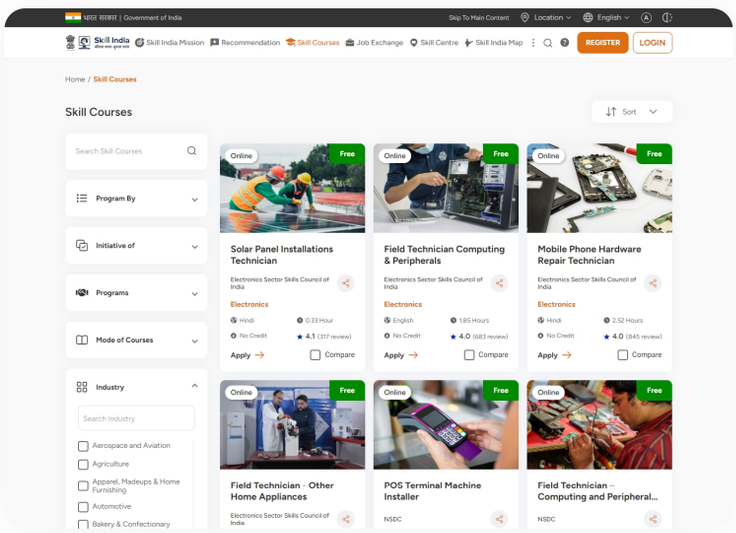
Registration/KYC with the national identity

The platform provides role wise dashboards where in each role has its own dashboard and activities to be performed accordingly.
The dashboards includes users/learner, Admin, Course Author, Supervisor etc.

Course Authoring Studio

A course authoring studio which helps to configure and author the course as per your requirements. This means you don't need any other course authoring external tool



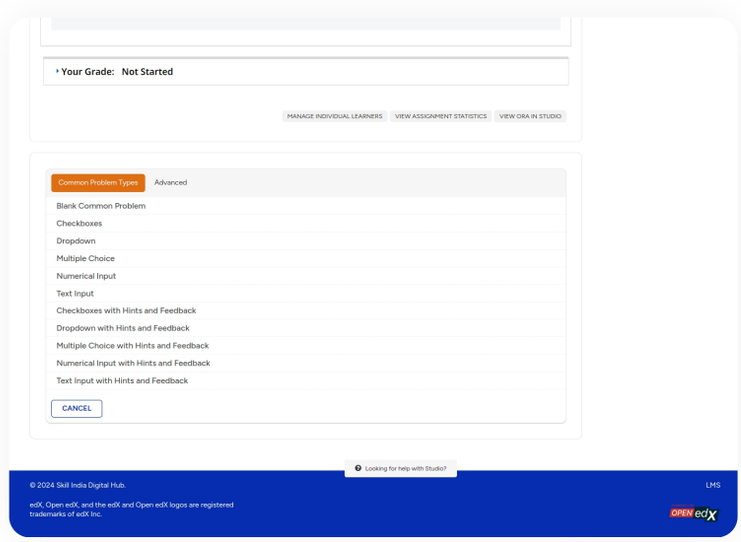


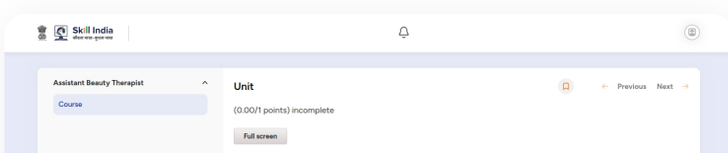
Course Catalogue

A course catalogue can be created which can be further filtered based on the multiple parameters

20+ types of Assessment

The platform empowers you to have 20 type of quiz like MCQ, Text input, Numeric response, Checkboxes (multiple choice, multiple correct answers), Open response exercises Image drag and drop, File submission, Peer graded questions and many more



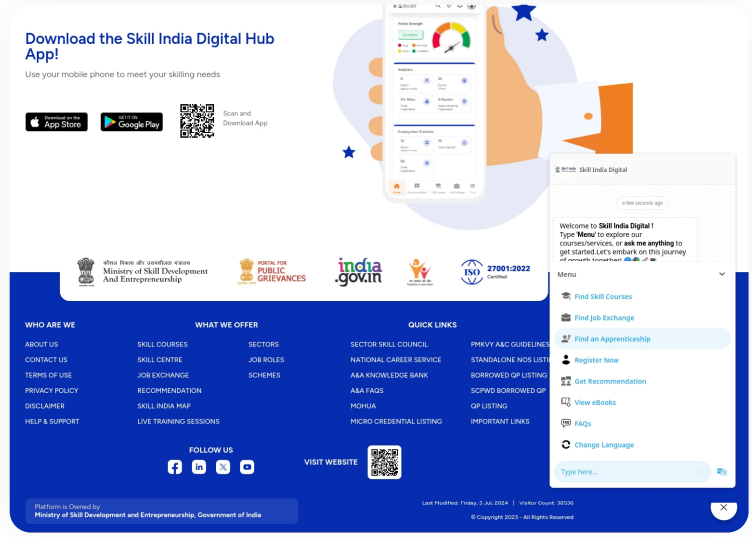


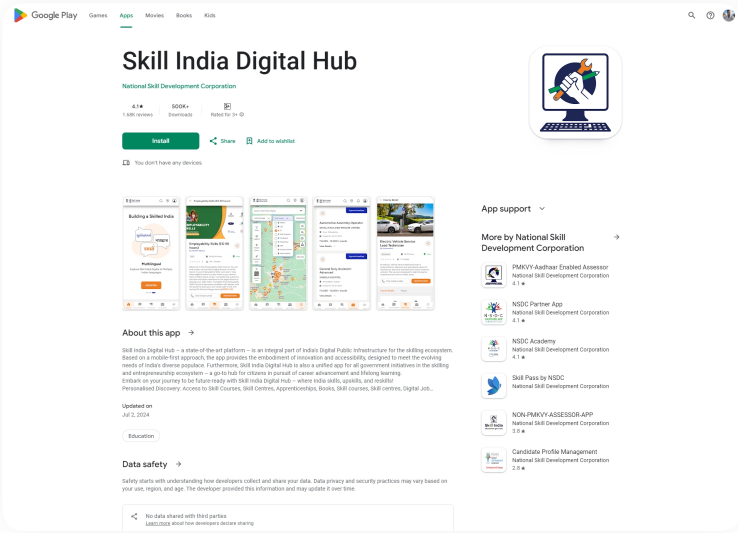
SCORM Compliant

SCORM support is available via a third party XBlock.

WhatsApp Chatbot

The platform has integration with WhatsApp chatbot to provide the answers for the questions been asked on WhatsApp which makes it very easy for users to browse or search courses on their WhatsApp

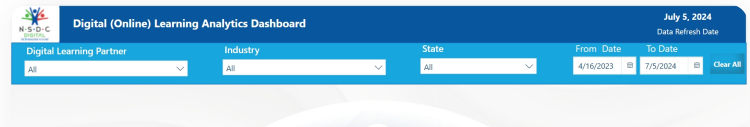




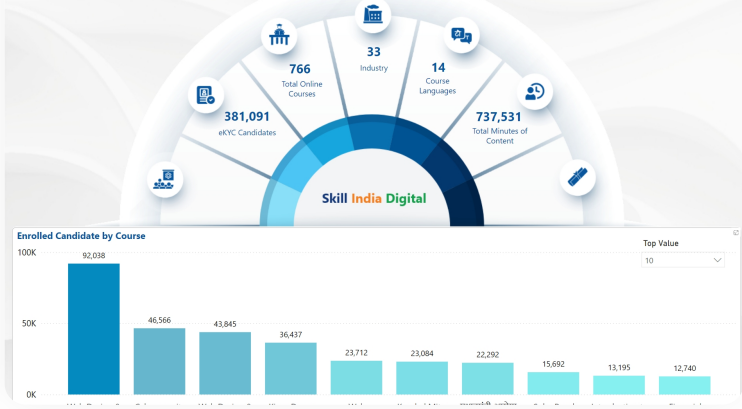
iOS and Android Native Application

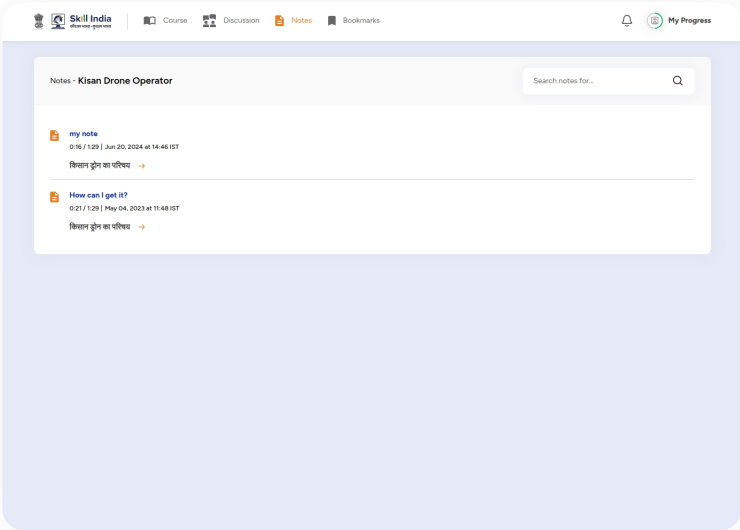
The platform supports both native applications like iOS and Android, so this is built with mobile only approach for users/learners

PowerBi based Reports



Various reports and dashboards are shown publicly using Power Bi as a data analytics tool which helps decision makers to make right decision.



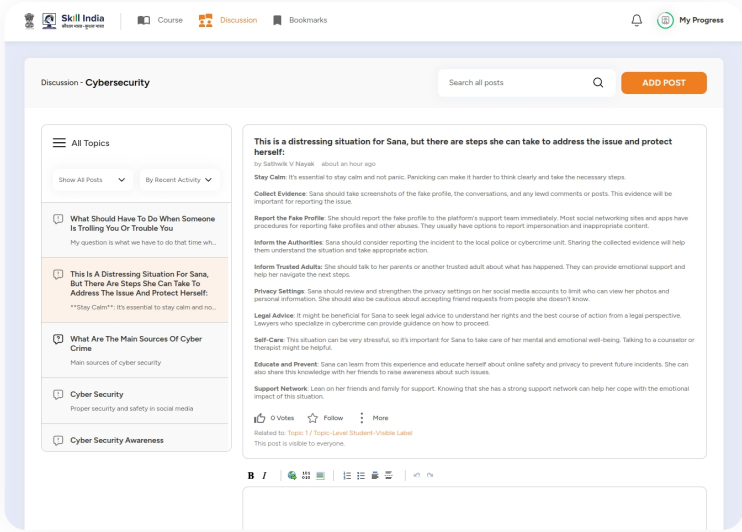


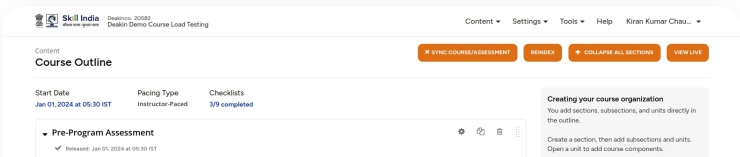
Notes

Users can add their notes for specific course content

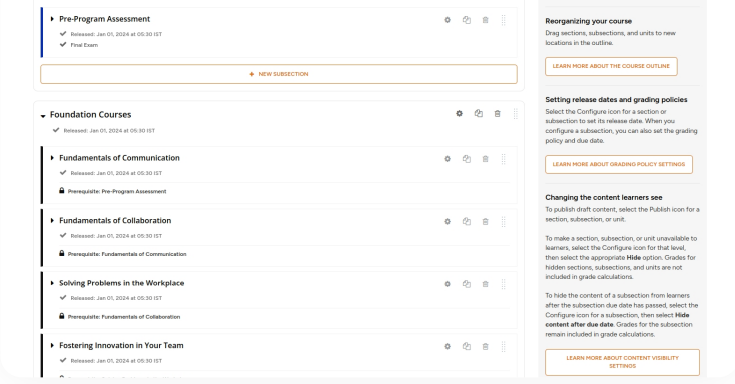
Discussion Forum

The discussion forum in the platform enables peer to peer discussion between users and authors so the learners can ask the question or put it as a discussion so questions are answered by the course author and discussions can be peer to peer between learners





Course Prerequisite

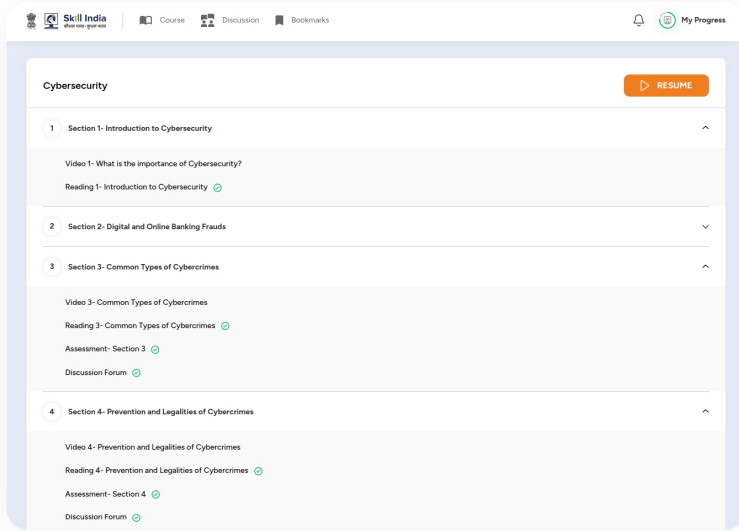


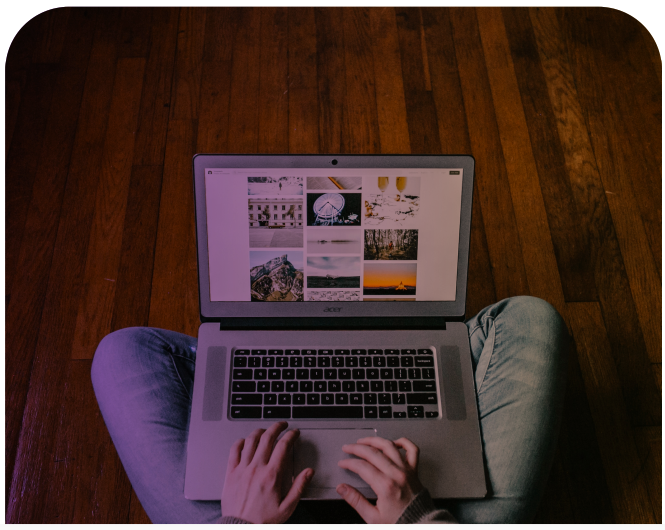
This enables users to take the courses in sequence for e.g. module 1 or level 1 course needs to be completed before module 2 so to ensure smooth learning based on the levels determined.

Structured Course Content

It has facility to have course in 3 levels Course

- Section
- Subsection
- Unit: It can have content





Other Features

- Digital CV
- Zoom integration for courses and webinars
- Auto Graded assignments
- WhatsApp & Push Notifications
- Email/SMS Notifications
- Reports
- Course Progress

Business Impact

This platform has significantly transformed the way learners access skill development opportunities, creating measurable outcomes for both the users and administrators.

Due to the platform, more than 5.5 million registrations and 1 million successful enrollments were achieved, making skill development available nationwide.

Learners gained the required skills and access to job opportunities with the integrated job marketplace.

Power BI analytics and reporting tools allowed admins to track progress, identify gaps, and improve skilling initiatives.

The AI recommendation improved course engagement by suggesting required learning paths for user profiles.

Multilingual support and mobile apps made sure that learners from different regions could participate effectively.

Conclusion

The digital learning platform reinvented skilling and upskilling across the nation by joining personalization, accessibility, and engagement together in a single solution. The platform powered millions of learners while connecting them to the right employment opportunities. The solution also enhanced learning outcomes, but also fortified the entire skill environment which made quality education and employment scalable.