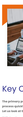
How did DRC Systems transform the concept of skilling & upskilling by creating a robust platform?

Project Overview



The client wanted to build a responsive and user-friendly digital platform to connect skilling, reskilling, and upskilling initiatives across the country. They wanted to build a platform that provided a seamless experience for users, with features like a multi-lingual support, AI-based recommendations, and many other features. The final product was built to improve skill development and job matching, ensuring accessibility and inclusivity for all 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:

Multi-lingual support: Include writing, speaking, and reading features in multiple languages.

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 access verification.

Multi-language support: Due to the different languages spoken throughout the country, the platform must be accessible in these different languages for a wider reach.

Data-driven insights: Provide analytics for decision makers to improve the 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 included:

Project expansion: Building a platform that can manage millions of users and high uptime rating.

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

High security: Since it is a national platform, implementing measures for data protection in line with DRC and national identity access regulations and requirements.

Multilingual support: Delivering content in 22+ languages without sacrificing page load speed or user experience.

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

Solutions Provided

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

The platform has achieved 5.7 million registrations and 1 million successful enrollments.

It integrates job boards linked to employer opportunities via data functioning as a marketplace connecting job seekers and job providers with specialized skills.

The platform includes an AI recommendation engine that suggests courses based on user profiles, job market trends, skill gaps, and personal needs.

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	STORAGE SERVICES	BACKEND	DATABASES	MOBILE APP
React JS, HTML5, CSS3, Bootstrap, Material UI, Ionic, Redux, Redux Saga	Cloudinary, Elasticsearch, Amazon S3, Google Services, Jenkins	Python, Flask, RDB	MongoDB, MySQL	IOS and Android, React Native

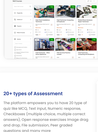
Features

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 listing the major activity is to get a job for which skilling is meant for and this job board connects job seekers with the events as a marketplace that connects job seekers 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 profile, job market trends, skill gaps, and personal needs. It helps to improve their income or get job based on the questions asked and interest in known and recommendations are given.

Multilingual

This has more than 22 languages and we can add more languages easily as users can learn in their own language.

Mobile OTP for authentication

An up 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 features to manage and accomplishing. The dashboards includes users/learner, Admin, Course Author, Supervisor etc.

Course Authoring Studio

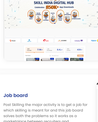
A course authoring studio which helps to configure and author the course as per your requirements. This means you don't need any other course authoring external tool.

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 answer, Fill in the blanks, Interactive image drag and drop, File submission, Rear grouded questions and many more



SCORM Compliant

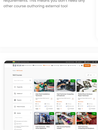
SCORM support is available via a third party library.

WhatsApp Chatbot

The platform has integration with WhatsApp chatbot to provide the answers for the questions asked by the users/learners 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, as this is built with mobile only approach for users/learners



PowerBI based Reports

Various reports and dashboards are shown which is being 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 users to pass discussion between users and authors as the learners can ask the question or put a as a discussion as 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 or to be assigned learning based on the levels obtained.

Structured Course Content

- Total 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

DRC Systems 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 5.7 million registrations and 1 million successful enrollments were achieved, making skill development accessible 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 engine improved user engagement by suggesting relevant courses based on profiles and trends.

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

Conclusion

The digital learning platform implemented skilling and upskilling across the nation by joining personalization, accessibility, and engagement together. The platform's AI-driven recommendations, multilingual support, and mobile-first design have ensured that learners from different backgrounds have achieved enhanced learning outcomes. It has also facilitated the creation and consumption of high-quality educational and employment content.