



## Case Study



**Icreon**

# DEY, L.P.

An Integrated Learning Management System

**DEY, a US based pharmaceutical company, wanted a software solution to train their sales personnel on the various products manufactured by the company and on various sales and marketing strategies. They felt this would help the sales force make informed sales pitches thereby causing a potential increase in sales and revenues. Based on these requirements, Icreon delivered a web based learning management system that provides DEY with an easy and convenient means to train and evaluate the knowledge of its large sales force that is spread across different geographical locations. The solution provides a common platform for trainers to schedule and conduct training sessions and allows sales reps to participate in it.**

## Customer Profile

Founded in 1978, DEY, L.P. is a US based pharmaceutical company that develops, manufactures and sells, all across the United States, airway therapies and allergy drugs meant for the treatment of respiratory diseases.

## Business Requirements

DEY, L.P. has a large dedicated sales force, spread across the US, which is responsible for marketing and selling drugs and other healthcare products to physicians, hospitals and related organizations. DEY's sales training department wanted a solution that would provide them with an effective means to impart necessary information and train their sales force on the products being manufactured, and other sales and marketing strategies and courses. They required the solution to be built with provisions to enable their sales force trainers to upload training material/course content and assignments with ease. In turn, the courses were required to be accessible to the assigned sales reps. The solution required suitable provisions to create a wide range of online tests, associate them with courses, and evaluate test scores. Application users (i.e. trainers and sales reps) were to be provided with the option to interact and communicate with each other, from within the application. Provisions enabling DEY's administrators to manage and maintain the application were required to be built into the solution.

## A web based learning management solution to train the sales force

The solution, developed by Icreon using the .net framework, provides DEY with an easy to use and feature rich application that provides trainers and sales reps with an online platform to communicate and interact with each other.

Trainers can use the application to create and schedule courses and upload training material (in the form of Microsoft Producer zip files or external URLs) and assignments (any file format). Online tests with different types of questions (true/false, multiple choice etc) can be created and assigned to a course. The courses can be assigned to individual users/user groups. The users' (sales reps)

accounts and their permissions within the application are managed by trainers. Trainers are also responsible for uploading and managing content appearing on the website, in the form of news, training library and glossary. They can also schedule meetings with the sales reps on Microsoft Live Meetings and alert them through the application.

Sales reps can login to the application and view their personalized homepages containing information and the schedule of the current courses, and upcoming courses assigned to them. They can access a current course and view the attached training materials, download the posted assignments, complete them offline and upload these back into the course. In case a course has an associated test, the sales rep can participate in this. They are also provided with options to view their assignment grades (as awarded by the trainer) and test scores. The access to the various modules and the tasks that a sales rep can perform is based on permissions assigned by the trainer.

The solution has been divided into two main sections: Trainer and User.

## **TRAINER SECTION**

The trainer section provides trainers with tools to manage and administer the application. The various modules available include the following:

- **Training Module:** The training module can be used to define and schedule training courses in the system. Trainers can define a course (i.e. title, and validity period) and add a lesson to it. The course content in the form of a zipped Microsoft Producer file or an external URL can be uploaded and added to the lesson. When a course content file is uploaded, the system creates a sub-folder (within a common course folder) with the same name as the course lesson. The path to the folder is saved against the course.
- **Assignments:** Trainers can use the discussion module to upload and attach assignments with a course. All completed assignments (submitted by the users) will be available to the trainers for reviewing. Trainers can view the assignments and enter their comments and grades.
- **Examination:** Through the examination module trainers can create and manage a whole range of tests that can be associated with the available courses. While creating a test the parameters that can be set include: time limit, passing score, whether a re-attempt is allowed in case user(s) fail a test and whether the questions are to be randomized or not.

Once a test has been defined, questions can be added to it. Multiple question types, such as True/False, Multiple Choice and Matching, can be added to the test, and the correct answers for each can be stored. Options to attach an image with the question have also been provided.

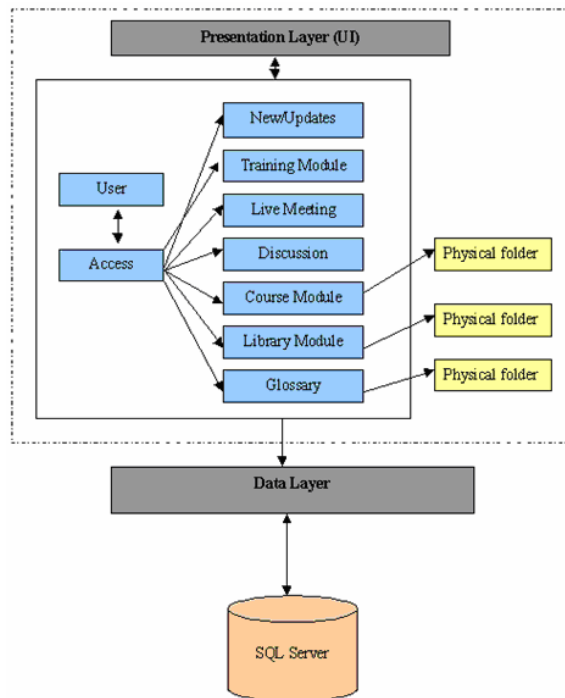
- **Calendar:** Trainers can enter the schedules of the training sessions and other events to the calendars of various user/user groups. All scheduled training sessions etc will be displayed, on the associated date in the calendar, for the trainer as well as the relevant users. Facilities for alerting users in case of upcoming events/training sessions have been built into the solution. Trainers can also enter details of their personal schedules in the calendar.
- **News:** Through the news module trainers can manage the news/articles appearing on the web application. Each news item can be assigned to individual users/ user groups.

- **BlackBoard (Discussion Forum):** Trainers can create discussion topics and categorize them within the blackboard. Trainers can view all the comments posted by users and can also moderate them. They can also post their comments/ start a new discussion thread on any topic.
- **Library:** Training material and other related documents (in any format such as .doc, .pdf, .xls etc) can be uploaded into the library. A brief description can be entered for each document.
- **Glossary:** The glossary module can be used to create and manage a glossary (definitions and pronunciations) of various drugs, and pharmaceutical terms. Trainers can use the glossary module to upload definitions of various terms to the glossary. They also have the option to enter the pronunciation of the term, both in a text and audio format.
- **Reports:** The reporting module can be used to generate various reports. In addition to the relevant details, all reports also include graphical charts that represent the report information in a visual manner. Trainers have the option to print or download the reports in an .xls, .csv or .pdf format. The various reports that can be generated include:
  - **System Users:** A report displays the details of all users available in the system.
  - **User Exams:** The report can be generated to view the details of a test taken by a user. The report displays all the questions attempted by the user and the answers given. The correct answer for each question (as entered by the trainer) will also be displayed.
  - **System Exam:** The system exam report can be generated to view the details of all the users who have taken a specific test. The report can be generated for a specific user, user group and test status(i.e. pass or fail). Options to sort the report on the basis of user name, score, test status etc have also been provided.
  - **User Discussion:** The User Discussion report can be used to view the details of all posts and comments made by a specific user/user group, during a specific time period, within a selected discussion category.
  - **Exam Answer:** The Exam Answer report can be used to view the details of the correct/incorrect answers (for a specific test) given by a specific user or user group.
- **Meeting Room:** Through the module trainers can define the details (i.e. the associated course, title and the Microsoft Live Meeting link) of conferences that have been scheduled on Microsoft Live Meeting. A meeting is associated with a course and the link to the meeting will be available to all users assigned to the course.
- **User Management:** Trainers can create and manage user accounts in the system. They can also create and manage user groups and can assign multiple users to each group.
- **Rights Management:** Through the rights management module trainers can assign permissions, restricting a user's access to specified modules. The module can be used to assign training courses, discussion topics, news items and reports to users or user groups.

## USER SECTION

Based on the permissions assigned, the user (sales rep) will be provided with access to the various modules in the system. The modules available to the user include:

- **Training:** A list of all current and upcoming training sessions, assigned, is displayed to the user. The user can access and view any of the current courses. The course details include the course content i.e. all the files contained in the attached Microsoft Producer zip file or a link to the external URL. In addition, assignments attached with the course are also displayed. Users can download the assignments, complete them offline and submit them for reviewing. All the assignments that have been reviewed are displayed along with the grades awarded and the trainer's comments.
- **Examination:** A user can take a test, associated with an assigned course. The test is displayed on the basis of the parameters set and is required to be completed within the defined time limit. Before submitting a test users have the option to review their answers. When a test is submitted the system will verify the user's answers against the correct answers (as defined) and will accordingly calculate the score and test status (i.e. pass or failed). A bar graph showcasing the user's performance with respect to the total score for the test is displayed.
- **Glossary:** Users can access the glossary and search for drugs and other pharmaceutical terms alphabetically or on the basis of keywords.
- **Library:** Users can access the training library and search for available documents and files alphabetically or on the basis of keywords. The documents available in the library can be downloaded by the users.
- **BlackBoard:** All the topics that have been assigned to the user will be displayed in the blackboard section. The user can browse through all available topics and can start a new discussion thread or post their comments on an existing discussion thread. Documents/files can also be attached with a comment.
- **Calendar:** Users can use the calendar to store their personal schedules of meetings, events etc. They can also view the schedules of the trainings and other events, assigned to them by the trainer. Users cannot edit or delete the schedules assigned to them by the trainers.
- **News and Updates:** Users can view the news articles that have been assigned to them.
- **Meeting Room:** The meeting room module provides users with a link to the meeting scheduled on the Microsoft Live Meeting application. The link will be available only in case meetings pertaining to the courses assigned to the user have been scheduled by the trainer.



**System Architecture**

**Technologies used in developing this application are:**



## Summary

With the successful delivery of the solution, Icreon has enabled DEY to streamline their sales training process in a cost and time effective manner. The software provides DEY with all the tools necessary to conduct training sessions. Interactive training material including audio/video content, multimedia presentations etc can be uploaded into the system as Microsoft Producer files. The sales reps can, at any time convenient to them, access the application and enhance their knowledge by participating in the available training sessions and online tests. The solution has also enabled DEY to create and manage an online knowledge repository (including a training library containing reference material and other documents, and a glossary of drugs and pharmaceutical terms) that can be readily accessed for reference purposes. Interactive features such as the discussion forum etc have enabled sales reps to communicate and share ideas with each other.