



## OFFICE OF INDUSTRY MANPOWER DEVELOPMENT

# TERMS OF REFERENCE

### I. Project Title

#### **DEVELOPMENT OF DOT LEARNING MANAGEMENT SYSTEM**

### II. Background

In Section 13 of Republic Act No. 9593 or the Tourism Act of 2009, the Office of Industry Manpower Development (OIMD) is mandated to develop training modules and conduct seminars and continuing education for industry workforce to upgrade the quality, competence, and excellence in tourism services. The OIMD planned to provide new strategies, innovative and responsive trainings for the tourism industry stakeholders and LGUs, keeping in mind that as human capital, there is a trigger to constantly ensure that the tourism professionals are always valuable assets throughout the tourism work life cycle.

In 2020, a total of 538 online trainings were conducted through OIMD-initiated and Tourism Industry Skills Program which resulted to 36,404 trained participants from the tourism industry and LGUs.

The program is also consistent with the *Bayanihan To Heal As One Act*, and is one of the activities identified by the DOT in the Tourism Response and Recovery Plan on COVID-19 by shifting the conduct of trainings to DOT Online Learning Courses through various online applications to ensure the safety of everyone, virtually continue the “upgrading skills and enhancing knowledge” of the tourism stakeholders even in the comforts of their homes or offices.

### III. Purpose/Objectives

With the positive feedback and demand for more trainings from the tourism stakeholders, OIMD shall continue to offer online and blended learning courses even beyond the pandemic as the tourism industry prepares to embrace the “*Better Normal*”. Hence, the OIMD is in need of the services of an IT Consultant that is capable of providing professional consultancy and information technology services for the *Development of DOT Learning Management System (DOT-LMS)*.

The selected IT Consultant shall undertake the planning, development, maintenance and implementation of the said learning management system in accordance with the following objectives:

- To develop web portal which shall provide an all-inclusive learning experience, encompass features and tools expected in today’s digital learning landscape for tourism industry stakeholders;
- To develop a system’s user interface, features and functionalities in the learning management system;

- To integrate the registration process, enrollment of learners in the DOT-OIMD/Regional learning courses, monitoring and tracking of learner's progress, customized reporting, and providing data and learning analytics in one system;
- To develop a regional learning system which shall provide safety and security features against unauthorized access and tampering of data and information;
- To create a feedback mechanism and impact assessment tool on DOT-OIMD programs and pool of resource speakers/tourism trainers;
- To have a learning system which can meet different modes of training delivery, efficient, effective, user-friendly, as well as, promote active and collaborative learning, and accessibility to the learners/training participants that will give an actionable insight on course and learner's progress.

#### **IV. Bidder's Qualification**

##### **1. Qualifications of the Company**

- 1.1 Must be a duly registered sole proprietorship, partnership or corporation with at least five (5) years IT experience in the design, development, implementation and maintenance of Learning Management System;
- 1.2 Must be knowledgeable in learning solutions via online and blended formats with experience in developing live and on demand learning tools that will support the entire learning lifecycle;
- 1.3 Must be capable of providing expertise in terms of LMS in a government setting and also has an extensive experience and expertise in IT-based LMS systems that will help DOT in the policy and procedure required for the successful implementation of learning management solution;
- 1.4 Must have developed at least two (2) web-based applications and implemented a fully integrated learning management solution to private and government agencies with at least 1,000 training participants/students in a centralized and decentralized mode; and
- 1.5 Must have successfully completed at least five (5) web-based application systems with government and/or private entities.

##### **2. Qualifications of Team Members**

The Team Members should have the following skills and qualifications;

###### **2.1 Team Leader**

- 2.1.1 Must be knowledgeable in programming language such as but not limited to html5, php, css, python, java, etc.
- 2.1.2 At least five (5) years in experience
- 2.1.3 Attended two (2) web development trainings for the past 3 years
- 2.1.4 Attended at least 40 hours of training related to project management for the past 3 years

## 2.2 System/Data Analyst

- 2.2.1 Must be knowledgeable in programming language such as but not limited to html5, php, css, python, java, etc.
- 2.2.2 At least three (3) years in experience
- 2.2.3 Must be able to analyze, model and interpret data
- 2.2.4 Attended two (2) relevant trainings for the past 3 years

## 2.3 Database Administrator

- 2.3.1 Must be knowledgeable on database such as but not limited to MySQL, MsSQL, OracleDB, etc.
- 2.3.2 At least three (3) years in experience
- 2.3.3 Attended one (1) relevant training for the past 3 years

## 2.4 Programmer / Graphics Designer

- 2.4.1 Must be knowledgeable on programming such as but not limited to Java, Javascript, Bootstrap, HTML, CSS, etc.
- 2.4.2 At least three (3) years in experience
- 2.4.3 Attended two (2) relevant trainings for the past 3 years

## 2.5 Quality Assurance Tester

- 2.5.1 Must be knowledgeable on project management and software development method/QA methodology
- 2.5.2 At least three (3) years in experience
- 2.5.3 Attended one (1) relevant training for the past 3 years

**Note:** Bidders may provide additional personnel deemed fit for the team.

*Bidder must submit proof that they meet the qualifications indicated in the above (example: list of relevant projects, training certificates, diploma, etc.).*

## V. Scope of Work and Deliverables

1. The provider must design, develop, and customize a web-based DOT Learning Management System (DOT-LMS) which shall cover the following:
  - 1.1. Registration Management Module
  - 1.2. Learning Management Module
  - 1.3. Virtual Classroom Module
  - 1.4. Built-in Feedback and Survey Module
  - 1.5. Reporting and Analytics Module
  - 1.6. Skills Passport Module
2. Data Gathering - Conduct data gathering activities to define the scope of the project and required functions and features.
3. Develop and submit Inception Report - defining the Project Scope, Development Approach, Project Composition, Project Schedule and Acceptance Procedures.
4. The defined project scope must be transformed into a System Design Specifications which includes the flowchart of the proposed system, data elements, screen and report layouts, menu navigation and integration points.

5. Delivery of approved System Design Specifications which will include coordination meetings to discuss requirements and the creation of a detailed specification document, outlining of functional and technical details of the system. Approval shall be required prior to deployment.
6. Progress Report - Progress report must be submitted regularly to the DOT-OIMD as to be determined by both parties.
7. Data Migration - Perform data migration, provide the necessary equipment, tools and software for the system's implementation.
8. Cloud Storage Services – The system must be supported by scalable, security-rich, and cost-effective cloud data storage of at least 4TB per month with a minimum subscription plan of three (3) years which shall be turned-over to DOT after system's completion. Provision of synchronized-onsite and cloud data updates, as well as, provide assistance to DOT in migrating cloud-stored data to the DOT available server prior to expiration of the subscription. Subscription plan should be directly under the name of DOT.
9. Cloud Disaster Recovery – Database resiliency and backups in the event of a system/database failure, the service would cut-over to an alternative availability zone. Subscription plan will depend on the system requirement/data to be approved by the DOT end-user. Subscription plan should be directly under the name of DOT.
10. Backup and Data Archiving – The system shall provide daily and monthly backup outside the system through a dedicated desktop or storage device. Data archiving data should also be stored outside the system and should be readable or reloadable thru the system.
11. The Project IT Team must have at least five (5) team members, to wit:
  - 11.1 One (1) Team Leader
  - 11.2 One (1) System/Data Analyst
  - 11.3 One (1) Database Administrator
  - 11.4 One (1) Programmer/Graphic Designer
  - 11.5 One (1) Quality Assurance Tester
12. User Acceptance Test - The objective of this phase is to conduct simulation on the actual process of the system (function, performance and security) to make sure that it operates according to the user requirements.
13. Users Training - Service Provider should provide training to concerned employees and users (OIMD, Regional Training Champions and IT staff) related to technicalities, software processes including operational procedure such as but not limited to the following:
  - 13.1 IT Division
    - 13.1.1 Must provide proper knowledge transfer to at least five (5) IT personnel
    - 13.1.2 Training on Level 1 trouble shooting
    - 13.1.3 Training on data migration, archiving, cloud data storage transfer, and cloud disaster recovery
  - 13.2 OIMD Systems Administrator
    - 13.2.1 Must provide proper knowledge transfer to at least five (5) OIMD personnel
    - 13.2.2 Super Administration Operation Training

13.2.3 Training on data migration, archiving, cloud data storage transfer, and cloud disaster recovery

13.2.4 Systems operations and usage

13.3 All End-users (OIMD, TRCRG, Training Champions and Trainers)

13.3.1 Online Training for System Usage and Operation for four (4) batches

13.4 Public Users (Learners/Participants)

13.4.1 Self-paced Training using Video User's Manual

*Note: All training materials, user's manual, systems manual and video user's manual shall be provided by the Service Provider. Travel expenses, hotel accommodations, trainer's fee, etc. shall be shouldered by the winning bidder.*

*In addition, should the training be conducted virtually, the cost for the online platform to be used, communication expenses, and other related expenses shall be shouldered by the winning bidder.*

14. Maintenance and Support - Provide maintenance services and support for all users and administrators of the system for a period of two (2) years after acceptance (UAT) via direct call or email support (both technical and end-user queries). Maintenance includes on-site and remote support, database administration and fixing of errors.

15. Transfer of Knowledge - Program codes, subscription to online platform and cloud services, and other details of the system developed must be completely turned-over to the DOT, necessary training on understanding the LMS infrastructure as specified in Item No. 13, endorsements of essential information, such as source codes, cloud services/platform subscription, technical and user manual as stated in Item No. 16, all assets used in building the system and all other essential data.

16. Prepare the following documentation for the entire project and ensure that existing government rules and regulations are considered:

16.1 Three (3) sets of hard and soft copy of Completion Report

16.2 Three (3) sets of hard and soft copy of the Systems Administration Manual (policies, procedures, operations and maintenance of the system)

16.3 Three (3) sets of hard and soft copy of the User's Manual (user guide, description, system usage including Frequently Asked Questions)

16.4 Video User's Manual

17. Security Features

17.1 Must be capable of role-based access control, native authentication, single sign-on, multi-factor authentication, attribute-based access control and custom authentication.

17.2 Must have an auditing procedure that will securely manage stored data/information in the cloud (e.g. SOC 2, CSA Star 2, etc.).

17.3 Must provide a set of tools and services offering a holistic view of an organization's information security, real-time visibility across an organization's information security systems, event log management that consolidates data from numerous sources, and the like.

17.4 Must have data encryption, node to node encrypted communication, field and document level security.

## **A. General Requirements for the System**

1. Web-based applications/modules shall be able to run through mostly used desktop or laptop, mobile devices, web and mobile browsers such as Google Chrome, Internet Explorer, Mozilla Firefox, etc.
2. The system should be using a multi-tiered layer approach with Model-View-Controller pattern.
3. The system must be compatible with the OS Database of the DOT, and should be able to connect to all major types of latest versions of relational databases systems such as Oracle, MySQL, Postgre, MSSql, and DBF.
4. The system must be capable of role-based access control, native authentication, single sign-on, multi-factor authentication, attribute-based access control, custom authentication, security information and event management, data encryption, node to node encrypted communication, as well as, field and document level security.
5. The approval process will be identifiable by the authorized users thru the library table of authorized signatories.
6. Compatibility with existing systems and hardware/equipment such as but not limited to Windows 7 and up, Android, IOS, mobile devices, laser/deskjet printers, photocopier, etc.
7. The system must provide a Portal or Landing Page which shall allow flexibility for the learners to access training-related transactions. It shall be accessed through user defined access control and login requirements. The portal shall provide necessary features/display the following information;
  - 7.1 Dashboard/Analytics on Training Statistics and Other Accomplishments
  - 7.2 DOT-OIMD/Regional Training Programs
  - 7.3 OIMD and Regional Training Calendars
  - 7.4 Definition of Terms and How to Avail the DOT-OIMD Trainings
  - 7.5 Announcement/ Public Advisory
  - 7.6 Link/show web address to the DOT Regional Directory
  - 7.7 List of OIMD Pool of Resource Speakers/Trainers
  - 7.8 List of DOT-Accredited Tourism Enterprises/Frontliners
  - 7.9 FAQs and Downloadable Forms
  - 7.10 Related DOT Circulars and Guidelines
  - 7.11 Online Inquiry, Feedback and Suggestion Form which can be sent to designated OIMD/regional staff

The system shall allow authorized user to publish, edit, delete, and archive information found on the landing page through the Content Management System.

8. Provision of sitemap for website search engine optimization.
9. The system shall provide the user the facility to create a report template and generate using the system, report content, style and output format to be user-defined.

10. The system shall easily implement changes or new policies without the need for system enhancement and modification. The system should be adaptable to business policy changes.

#### 11. Access Control and Login Requirements

- 11.1 Creation of unlimited user with different functionalities.
- 11.2 The user or access levels of the users should be configurable down to the activities/actions that may be performed on a specific user.
- 11.3 All users will access the system through the internet. Users will access the system using email address and password. They must be authenticated, and access rights are based on their roles.
- 11.4 The OIMD System Administrator and users shall have full access to all functions and features as authorized by the OIMD Director.
- 11.5 Access must be denied after 3 unsuccessful login attempts. After which, the user account will be locked and needs to be reset by the designated OIMD/Regional Administrator to allow re-login to the system.
- 11.6 Provide change password facility similar to windows forgot password concept.

12. The system shall provide Audit Trail Facility.

13. User Management – The System shall allow the OIMD System Administrator to manage users, groups, and roles as follows:

- 13.1 DOT – OIMD Accounts
  - 13.1.1 System Administrator
  - 13.1.2 OIMD Director
  - 13.1.3 Manpower Planning and Monitoring Division Chief
  - 13.1.4 Manpower Training Division Chief
  - 13.1.5 Cluster Head
  - 13.1.6 OIMD Training Champion
  - 13.1.7 Undersecretary, TRCRG
  - 13.1.8 Assistant Secretary, TRCRG
- 13.2 DOT – IT Division Account
  - 13.2.1 Server and Database Administrator
- 13.3 DOT – Regional Accounts
  - 13.3.1 Regional Administrator
  - 13.3.2 Regional Director
  - 13.3.3 Regional Division Chief
  - 13.3.4 Regional Training Champion
- 13.4 External Users
  - 13.4.1 Resource Speakers/Trainers
  - 13.4.2 Learners/Training Participants

**Note:**

- *User and Access Roles may be changed depending on the structural design of the system.*
- *The system shall also have a provision to add/delete/disable/ archive Users.*

## **B. System Functional Specifications**

### **1. Registration Management Module**

- 1.1. Online Registration

- 1.1.1 Manage and process via online registration
  - 1.1.2 Provide tools needed to process and manage registrations automatically 24/7
  - 1.1.3 Real-Time email registration notifications and automatic event reminders
  - 1.1.4 Automatic waiting list management tools
  - 1.1.5 Integrated name ID/badge printing
  - 1.1.6 Custom fields including field dependency, branding and customization tools
  - 1.1.7 Integrated reporting, APIs and data export features
- 1.2. Check-in and Attendance Tracking
    - 1.2.1 Fully integrated registration processing with Attendee check-in solutions, including name ID/badge scanners, and the like.
    - 1.2.2 Automatic attendance tracking with time monitoring and reporting
    - 1.2.3 Branded event mobile app (with active event guide, deliverables & feedback tools)
    - 1.2.4 24/7 On-Site Security System Monitoring (for self-paced learners)

## **2. Learning Management Module**

- 2.1. Easy to Use for Admins and Learners
  - 2.1.1 Design should be functional, informative user experience
  - 2.1.2 Can access LMS anytime, anywhere through mobile application
  - 2.1.3 Tracking of learners' progress and compliance
  - 2.1.4 Create curriculum and pathways
  - 2.1.5 Manage access roles of DOT officials, OIMD Team, Regional Training Champions, Trainers/Resource speakers
- 2.2. Assign Courses and Activities
  - 2.2.1 Enroll learners in a single course or programs like onboarding and compliance
  - 2.2.2 Screen enrolment requests from staff and designated officers
  - 2.2.3 Send notifications to learners, trainers, training champions
  - 2.2.4 Upload Shareable Content Object Reference Model (SCORM)
  - 2.2.5 Upload course presentations, videos, assignments and other learning materials
  - 2.2.6 Create learning activities such as quizzes, games, interactive video
  - 2.2.7 Interactive content
- 2.3. Issuance of Completion Certificates
  - 2.3.1 Issue Certificates upon approval of OIMD Director/Regional Director
    - 2.3.1.1 Certificate of Attendance/Participation (Director/Regional Director Level)
    - 2.3.1.2 Certificate of Training (Undersecretary Level)
  - 2.3.2 Customized branding and formatting of Certificates
  - 2.3.3 Automatic assignment of unique serial numbers and QR codes



2.3.4 Security feature on the digitized signatures of the authorized signatories

2.3.5 Auto award option upon course completion

2.3.6 Print and Save to Profile

#### 2.4. Other features/functionality

2.4.1 Live chat and messaging in the platform (group and private chat)

2.4.2 Can add or block users

2.4.3 Push notifications that will give them timely reminders for announcements, new tests, upcoming due date, new grades, and more

2.4.4 Announcements, e.g. assignment due, session cancelled/postponement, other on-the-go access to the latest announcements

2.4.5 Cloud Storage: Store files in multiple places. App gives students easy access to cloud stored files on Dropbox, Google Drive, and OneDrive and lets them easily attach files to assignments

### **3. Virtual Classroom Module**

3.1 Real-time, face-to-face collaboration

3.2 Virtual classroom (or session) is created

3.3 Online platform links shall be redirected to the “classroom” generated by the application

### **4. Built-in Feedback and Survey Tools Module**

4.1 Survey tools to administer pre-training assessments

4.2 Provide post-training evaluation tools for learners

4.3 Training feedback mechanism and impact assessment tool for OIMD programs and resource speakers/trainers

4.4 Integrated reporting, APIs and data export features

### **5. Reporting and Analytics Module**

5.1 Built-in reporting tools

5.2 Provision of all the tools necessary to integrate LMS activities/data analytics

5.3 Integrated reporting, APIs and customized data export features/tools

5.4 Dashboard – this shall provide national and regional sex-disaggregated statistical data on conducted trainings for OIMD-initiated, regional-regular and TISP trainings and to be linked/displayed in the portal/landing page.

5.5 Real-time management reporting – the system must be able to generate reports in any date range (i.e. as of date specified, monthly, quarterly, yearly, etc.). The report can be exported in excel and PDF format. The following reports may be generated from the system:

5.5.1 List and No. of Trainings conducted per type of training (i.e. OIMD-initiated, Regional-regular, TISP)

5.5.2 List and No. of Registered Participants

5.5.3 List and No. of Attendees

5.5.4 List and No. of Certificates Released

5.5.5 Other reports based on the template to be provided

*Note: All reports can be generated by type of Sector, by Region, by Province, by City/Municipality, by Sex, and etc.*

## **6. Skills Passport Module**

6.1 A Skills passport tool that will record the participant's profile, trainings attended, skills, competencies and the like

6.2 Generate a skills passport document of each participant

6.3 DOT-OIMD Participant's Registry – record of trained participants

6.3.1 OIMD-initiated Trainings (Clusteral and National)

6.3.2 Regional Regular Trainings (per Region)

6.3.3 Tourism Industry Skills Trainings (per Region)

6.4 Data migration of the existing DOT-OIMD Online Registry

## **VI. Warranty**

Two (2) year warranty from the issuance of Certificate of Acceptance. Warranty for the System shall be free of charge and shall cover/consist of the items below but are not limited to the following:

1. Must successfully install, configure/ setup and implement the DOT-LMS features stated in this Terms of Reference.
2. Re/Installation, setup, and re/configuration of the application, database server, and other equipment provided free of charge.
3. Provide pro-active assistance for two (2) years starting from the date of system implementation.
4. Shall provide four (4)-hour response time upon receipt of call and next business day on-site visit when necessary.
5. Provide site visits, on-line telephone and e-mail support within the warranty period as needed by DOT. On call support should be available 8 hours a day (normal working hours 8am to 5pm), 5 days a week (Monday to Friday).
6. Provide configuration for standard configuration, performance tuning and disaster recovery support/ warranty period.
7. Bug fixes, corrections and minor adjustments free of charge during warranty period.
8. Proponent shall provide a point person to monitor and coordinate with the project team in any concerns during the warranty period.

## **VII. Duration of the Project**

Six (6) months from the issuance of Notice to Proceed.

## VIII. Mode of Payment

Payment shall be processed in accordance with the government accounting rules and regulations.

## IX. Approved Budget Cost (ABC)

The Consultant shall be paid the amount of Five Million Pesos (Php 5,000,000.00), inclusive of all applicable government taxes in accordance with government procedure and based on the following:

Payment Reference	Amount
- Inception Report / Provision of requirement analysis	10%
- Delivery and Approval of Specifications - Alpha Version of the system and testing of functionality - Submission of Progress Report	25%
- Delivery of Beta Version and Testing – improved design and functionality - Beta Accomplishment/Progress Report	25%
- 100% Completion of the Project - Submission of Accomplishment/Completion Report	20%
- Conduct of Trainings and Issuance of Certificates - Submission of complete and detailed documentation report as stated in Item 16 of Scope of Work and Deliverables - Submission of source codes - Submission of required manuals - Endorsement of licenses/subscriptions	10%
- Retention Fee	10%

### Note:

- *If the man-days will exceed, no additional cost shall be charged to the DOT.*
- *Service provider shall submit Terminal Report and/or other requirements requested by the end-user (if applicable), prior to the processing of payment.*

## X. PROJECT OFFICER/CONTACT PERSON

MARIAN B. OBISPO

Manpower Planning and Monitoring Division

Office of Industry Manpower Development

Email: [marian.obispo@gmail.com](mailto:marian.obispo@gmail.com) / [mbobispo@tourism.gov.ph](mailto:mbobispo@tourism.gov.ph)

Prepared by:

  
**MARIAN B. OBISPO**  
Project Officer, OIMD

Approved by:

  
**ROWENA LU Y. MONTECILLO**  
Director, Office of Industry Manpower Development