B2:

Viết lại danh sách “yêu cầu cao” được đưa ra trong nghiên cứu tình huống và xác định bất kỳ yêu cầu nào mà bạn cảm thấy không phù hợp để trở thành yêu cầu cấp cao, đưa ra lý do của bạn cho điều đó.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Requirement ID** | **Requirement** | **Team** | **Approprateness** | **Reason for exclusion (if applicable)** |
| REQ\_1 | A login facility | Finance team | Yes | Essential for user access and system security. |
| REQ\_2 | A payment system | Finance team | Yes | Critical for financial transactions. |
| REQ\_3 | A facility to track funds, their allocation, and application. | Finance team | Yes | Important for financial transparency. |
| REQ\_4 | Synchronization between the system and the origanization’s banking system | Finance team | No | Integrating banking systems requires a lot of technical complexity including security and data integrity issues, so 3 months is quite short for development. In addition, the finance department was able to reduce the number of errors made, which shows that the current process can still work. |
| REQ\_5 | The system should be fast and reponsive | Corporate client management team | No | |  |  | | --- | --- | |  | This is a non functional requirement related to performance, not an advanced functional requirement. | |
| REQ\_6 | The system should allow for communication with businesses, individuals, and other sources of donations | Corporate client management team | Yes | Essential for external interaction |
| REQ\_7 | The system should support training booking | Corporate client management team | Yes | Key functionality for training management. |
| REQ\_8 | Management should track training progress | Corporate client management team | Yes | Necessary for monitoring training effectiveness. |
| REQ\_9 | The system should facilitate collation of contacts and mailing lists. | Corporate client management team | No | This requirement is related to managing contacts and mailing lists, but is not the core functionality of the training system. |
| REQ\_10 | Categorize different training programs | Application management team | Yes | Classifying training programs helps the system organize programs clearly, easily searchable and suitable for users' needs. At the same time, it supports staff in proposing and processing training applications more effectively. |
| REQ\_11 | Consult with clients and experts to find suitable training programs | Application management team | No | This is a human activity (a business process) not a software function that needs to be developed. |
| REQ\_12 | Compile criteria into preliminary application forms. | Application management team | Yes | This is an important function in the process of managing enrollment and selecting candidates for training programs. |
| REQ\_13 | Tools should be available to help choose the best trainning | Application management team | Yes | Improves decision-making. |
| REQ\_14 | Allows for real-time changes to applications forms | Application management team | Yes | Help staff update forms quickly when there are changes in training programs, improving flexibility and operational efficiency. Need to improve for new specifications |
| REQ\_15 | Applications should track their application status | Application management team | Yes | Help candidates track their application progress, improve user experience, and reduce support workload. . Improves user experience and transparency. |
| REQ\_16 | Notify applicants about selection results | Application management team | Yes | Automatic notification of results helps candidates grasp in time, reduces manual work for employees and enhances the professionalism of the system. . Ensures clear communication. |
| REQ\_17 | Applicants must be able to book a session | Application management team | Yes | Allow candidates to proactively choose the right time to attend training, helping to personalize the experience and increase scheduling efficiency. . Critical for scheduling. |
| REQ\_18 | Manage active training ( track deadlines, set notifications, and make notes) | Application management team | Yes | Support staff to track progress, reminders and notes about training process, ensure effective and timely training management. |
| REQ\_19 | Organize a virtual celebration for the CEO’s birthday | Application management team | No | Not directly related to the business goals or core functionality of the training system. This is an internal activity and should be handled outside the system or with another tool. |
| REQ\_20 | Integrate relevants parts of the old system into the prototype | Executive | Yes | Reusing legacy system parts saves development time, reduces risk, and ensures continuity in an organization's operations. |
| REQ\_21 | Maintain consistent branding on the website | Executive | No | This is a requirement for the interface and design, not the main functionality of the system. It should be considered as a low-level UI/UX requirement in the later stages of development. |
| REQ\_22 | Applicants must be able to register | Contracted expert | Yes | Allowing candidates to register is a basic and necessary function of the system, helping to collect information and manage candidates for training programs. . Fundamental feature for user onboarding. |
| REQ\_23 | Applicants must be able to view avaiable trainning sessions | Contracted expert | Yes | Allowing candidates to view available training courses is a basic function, helping them choose and register for the right program. |
| REQ\_24 | The system should notify users of completed actions | Contracted expert | Yes | Improves user experience and confirmation process. |
| REQ\_25 | Applicants should supply context-sensitive information when applying | Contracted expert | No | This requirement is more detailed and can be considered a low-level requirement during the requirements analysis phase. Providing context sensitive information is a specific feature that needs to be built, not the primary goal of the system. |
| REQ\_26 | Customers should not have to answer multiple questions before speaking to human representative | Corporate Client | Yes | Helps improve customer experience by reducing unnecessary intermediary steps, thereby improving communication efficiency with support staff. |

B2: Rewrite and add high-level requirements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story ID | Description | User Story | RequirementId | Justification |
| US\_1 | Login functionality for users to access the system securely. | As a user, I want to log into the system so that I can access my account securely. | REQ\_1 | The login function is required to secure system access. |
| US\_2 | Allow applicants to book training sessions. | As an applicant, I want to book a training session so that I can attend it at a convenient time. | REQ\_7, REQ\_17 | Allowing candidates to schedule training is a core function of the e-training system, helping users proactively choose a suitable time to participate in the training program. |
| US\_3 | View available training programs. | As an applicant, I want to view available training programs so that I can choose the most suitable one. | REQ\_23 | Allowing candidates to view available training programs is a basic and essential function in any online learning system. This makes it easy for users to search, compare, and choose the program that best suits their individual needs and goals. |
| US\_4 | Track application status and notify results. | As an applicant, I want to track my application status and get notifications so that I know the progress and result. | REQ\_15, REQ\_16 | Allowing applicants to track the status of their application and receive notifications of outcomes is an important feature that increases transparency and improves the user experience. This keeps users updated on the progress of their application, reduces anxiety, and reduces the need to contact support. |
| US\_5 | Enable real-time updates to application forms. | As a staff member, I want to update application forms in real-time so that we can reflect current training requirements. | REQ\_14 | Allowing staff to update application forms in real time is essential to accurately reflect the latest changes to the training program. This helps ensure that candidates are always filling in the most up-to-date information, avoiding errors in old forms, thus reducing errors and saving processing time. |
| US\_6 | Categorize training programs. | As a program manager, I want to categorize training programs so that users can find relevant ones more easily. | REQ\_10 | Classifying training programs helps the system organize content in a clear and scientific way, thereby supporting users to easily find courses that suit their individual needs. This is especially important for users who are not familiar with the entire system or have specific needs. |
| US\_7 | Suggest suitable training based on criteria. | As an applicant, I want the system to suggest suitable training programs so that I can make better decisions. | REQ\_12, REQ\_13 | The system recommends suitable training programs based on candidate criteria (such as experience, career goals, schedule, areas of interest, etc.) to help personalize the user experience and improve course selection efficiency. This is especially important in online training environments with diverse courses. |
| US\_8 | Track training progress, deadlines, and notes. | As a staff member, I want to track training deadlines and add notes so that I can manage the process more effectively. | REQ\_18 | Training progress tracking, deadlines, and notes help staff manage training programs more efficiently and in a more organized way. They can see what stage candidates are in, what deadlines are coming up, and record any comments or issues that arise during the learning process. |
| US\_9 | Integrate with parts of the old system. | As a developer, I want to integrate relevant parts of the old system so that we save time and reuse working features. | REQ\_20 | Integrating parts of legacy systems allows for reuse of proven functionality, saving development time and reducing risk compared to rebuilding from scratch. |
| US\_10 | Provide quick access to human support without long pre-screening. | As a user, I want to talk to a human representative without answering too many questions so that I get quick support. | REQ\_26 | This feature is intended to improve the user experience by reducing the number of intermediary steps required when users need support. In the context of an online training system like EPL’s, users may encounter registration, course access, or technical issues – having to answer too many questions before speaking to a staff member can be frustrating and reduce satisfaction. |

B3: MosCow Prioritization withtimebox estimation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| User Story ID | Description | Priority (MosCoW) | Timebox Estimation | Timebox Number | Justification |
| US\_1 | Login functionality for users to access the system securely. | Must Have | 2 weeks | 1 | Login is an indispensable requirement for users to access the system securely. Without this feature, the system cannot protect user information and cannot differentiate between users, reducing security and access control. |
| US\_2 | Implement a payment system for handling transactions. | Must Have | 2 weeks | 1 | A payment system is an essential requirement in a fee-based financial management or training system. Without this feature, the system cannot perform financial transactions, resulting in the inability to collect money from users or pay for services, affecting the system's operations. |
| US\_3 | Track funds and their applications for financial transparency. | Must Have | 2 weeks | 1 | Fund tracking is an important requirement to ensure financial transparency in the system. This allows users and stakeholders to monitor funds and ensure that finances are used for the right purposes. |
| US\_4 | Enable communication with businesses, individuals, and donors. | Must Have | 2 weeks | 1 | Communication with businesses, individuals and donors is an essential requirement to maintain partnerships and support the system's operations. The system needs to have flexible communication capabilities to maintain collaboration and manage relationships with stakeholders. |
| US\_5 | Enable applicants to book training sessions. | Must Have | 2 weeks | 1 | Allowing candidates to schedule training is a core feature of the system. Without this feature, candidates cannot choose the time and attend courses according to their schedule, reducing the user experience and operational efficiency of the system. |
| US\_6 | View available training programs. | Must have | 2 weeks | 1 | Viewing available training programs is a basic feature for users to choose the right course for their needs. Without this feature, users cannot know the training options and cannot take any courses. |
| US\_7 | Track application status and notify results. | Should Have | 2 weeks | 2 | Tracking application status and results notifications keeps users updated on their progress. However, the system can still function without this feature immediately, but it improves the user experience and reduces the workload for employees. |
| US\_8 | |  | | --- | |  |  |  | | --- | | Enable real-time updates to application forms. | | Should Have | 2 weeks | 2 | Real-time form updates make it easy for employees to make changes to information as training requirements change. While not a critical requirement, this feature improves work efficiency and reduces information processing time. |
| US\_9 | Categorize training programs. | Could Have | 2 weeks | 2 | Categorizing training programs helps organize the system and makes finding courses easier. However, it is not a core feature and can be implemented after more important features have been completed. |
| US\_10 | Provide quick access to human support without long pre-screening. | Could Have | 2 weeks | 3 | Providing quick access to human support improves the user experience and saves time. However, this is an advanced enhancement and not an essential feature from the start. The system can still function without it, but it makes the system more friendly and easier to use. |

TimeBox-Estimation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TimeBox number | Total user stories | Must-Have | Should-Have | Could-Have | Total estimation |
| Time box 1 ( week 1- 4) | 5 | 5 | 0 | 0 | 4 weeks |
| Time box 2 (week5-8) | 3 | 1 | 2 | 0 | 4 weeks |
| Time box 3 (week 9-12) | 2 | 0 | 0 | 2 | 4 weeks |
| Total | 10 | 6 | 2 | 2 | 12 weeks |

**Timebox 1: Implement the most important Must-Haves**

- Login, pay, register, book courses, track progress

**Timebox 2: Prioritize the Should-Haves**

-Real-time form updates, course selection tool, sponsor contact

**Timebox 3: Do Could-Have (if there is time)**

**Section C: Legal, Social, Ethical and Professional Issues**

**Legal, Social, Ethical and Professional Issues (LSEPI)**

1. **Role of Data controller**

A natural or legal person (including a legal person, public authority, agency, or other body) that makes decisions about the means ("how") and goals ("why") of processing personal data alone or in collaboration with others is known as the data controller. (Zanfir-Fortuna, 2020)

Zanfir-Fortuna, G. (2020). Data Controller, Processor or Joint Controller: What Does It Mean? In R. S. Alhajj & J. Rokne (Eds.), Encyclopedia of Criminal Activities and the Deep Web (pp. 215–230). IGI Global. Available at: <https://www.igi-global.com/chapter/data-controller-processor-or-joint-controller/255193> [Accessed 21 Apr. 2025].

Some of the key responsibilities and characteristics of a Data Controller:

**Defining “Why” and “How” Data is processsed:**

A controller's primary responsibility is to determine the means ("how") and the goal ("why") of data processing. This sets a controller apart from a processor, which just executes commands.

**Factual Influence Determines Responsibility**

The idea of controllership takes a practical stance; accountability rests with the organization that truly controls data processing, not merely the one specified in contracts. This guarantees that data subjects are effectively protected.

**Responsibility Regardless of Technical Control**

If an entity begins or benefits from processing, it can be seen as a controller even if it does not have direct control over the data or systems. In decisions like Google Spain, Facebook Fanpage, and Fashion ID, this was maintained.

**Joint Controllers**

Several parties are regarded as joint controllers when they collectively choose the goal and method of processing. In their portion of the process, each party is in charge of making sure GDPR compliance is maintained.

**Types of Controllers**

A controller may be a legal entity, a governmental authority, a natural person (such as a person engaged in professional activity), or any other entity that makes decisions on data processing.

**Liability for Data Protection Compliance**

Legally, controllers are in charge of making sure that all data processing operations that fall within their purview adhere to GDPR. This involves putting in place the proper organizational and technical safeguards.

1. **Legal Issues (Pháp lý)**

EPL is required to abide by pertinent data privacy legislation, including the Data privacy Act of 2018, the UK GDPR, and rules pertaining to user rights, anti-discrimination, and the right of access to information (FOI Act).

**Example:** In the medical field, where hospitals gather patient data. Hospitals are required under the UK GDPR and the Data Protection Act of 2018 to get patients' express consent before collecting sensitive information and to keep it safe. According to GDPR legislation, noncompliance may result in fines.

Information Commissioner's Office (ICO), n.d. The GDPR principles. [online] Available at: https://ico.org.uk/for-organisations/guide-to-data-protection/principles/ [Accessed 21 April 2025].  
European Union, 2016. Regulation (EU) 2016/679 (General Data Protection Regulation). Official Journal of the European Union.

1. **Social Issues (Xã hội)**

The effect of the system on social polarization, particularly with regard to access to information and technology, is another social issue that EPL must take into account. Everybody must be able to access the services and information that EPL offers, regardless of their financial situation or location, thanks to the systems that the organization puts in place.

**Example:** People who live in distant places or have low incomes will find it difficult to obtain training programs if the EPL's training registration system is only available through mobile devices or high-speed internet connections. This can result in a gap in learning opportunities between groups with better access and those without, in addition to making registration challenging (Brown and Thomas, 2019).

Brown, K., & Thomas, G., 2019. Digital divide and its impact on educational opportunities: A social perspective. Journal of Technology and Society, [online] 16(2), pp. 78-92. Available at: https://doi.org/10.1016/j.jts.2019.03.005 [Accessed 21 April 2025].

1. **Ethical Issues (Đạo đức)**

Managing personal data presents ethical problems for organizations, particularly when it comes to gathering, storing, and using user data. Transparency in the acquisition and use of data is crucial in order to provide consumers control over their information and to ensure that they understand why data is being collected.

**Example:** If EPLs gather personal information from participants in training programs without making explicit how that information would be used, they may encounter ethical dilemmas. For instance, it would be against the concept of respecting individual privacy and freedom if EPL used personal information for marketing purposes or shared it with third parties without participants' express authorization (Tavani, 2016).

Tavani, H.T., 2016. Ethical issues in the use of personal data. Journal of Ethics and Information Technology, [online] 19(1), pp. 35-47. Available at: https://doi.org/10.1007/s10676-016-9381-1 [Accessed 21 April 2025].

1. **Professional Issues (Nghề nghiệp)**

When implementing information technology systems, companies such as EPL are required to follow professional standards, which include guaranteeing software quality, data security, and system reliability. System developers are in charge of providing services as needed, preventing source code problems, and preserving system security from outside threats.

**Example:** The training registration system may have security flaws that allow user data to leak if EPL does not make sure it is created and maintained by trained experts and conforms with security standards. If the developers do not adhere to appropriate professional processes in encrypting and securing personal data, a significant security incident could erode participant trust and harm the EPL's brand (Brey, 2012).

Brey, P., 2012. The ethical dimensions of professional issues in information technology. Journal of Business Ethics, [online] 106(2), pp. 183-190. Available at: https://doi.org/10.1007/s10551-011-0979-3 [Accessed 21 April 2025].

**Conclusion:**

At EPL, the appointment of a Data Controller is essential to data management and maintaining regulatory compliance. Furthermore, LSEPI concerns assist EPL not only adhere to the law but also safeguard its brand and win over partners and users. EPL must integrate ethics and technology in order to function efficiently and sustainably in the contemporary digital landscape, as demonstrated by real-world examples from the suggested system.

**BCS Code of Conduct**

1. **Summary of the BCS Code of Conduct**

The British Computer Society (BCS) publishes the BCS Code of Conduct, which is a code of ethics and professional behavior for IT workers. It acts as a code of behavior for professionals, guaranteeing that IT workers behave in an open, capable, and socially conscious way. Public interest, professional competence and integrity, accountability to the appropriate authority, and accountability to the industry are the four main tenets that are highlighted. The BCS Code of Conduct offers an ethical framework that aids organizations like Edu Path Ltd (EPL) in managing and guaranteeing the ethics and quality of the development of their digital systems, including the e-training system that is presently being developed.

1. **Applying the BCS Code of Conduct in EPL’s E-training system**

**Public Interest- Lợi ích công cộng**

According to the notion, IT workers must operate in the public interest by guaranteeing everyone's safety, privacy, equity, and accessibility.   
  
**Application to the EPL**: Training programs need to accommodate those with disabilities, such as by working with software that reads screens for the blind.  
  
  
**Example**: American University was sued for breaching the Americans with Disabilities Act (ADA) by failing to provide assistance for individuals with visual impairments on their website.

Kelly, S. (2019) University website inaccessible to blind student, lawsuit says, CNN. Available at: https://edition.cnn.com/2019/01/18/us/blind-student-sues-university-website/index.html (Accessed: 21 April 2025).

**Professional Competence and integrity – Năng lực và liêm chính nghề nghiệp**

IT workers should behave themselves honestly, stay away from false information, act morally while making decisions, and retain professional competence relevant to their position.   
  
**Relevant to EPL**: When creating e-learning systems, software engineers should make sure they are knowledgeable about security, create user-friendly platforms, and comprehend laws like GDPR. Additionally, they should refrain from inflating their abilities or outcomes in order to win contracts or win over superiors.

Example: Numerous employees in the United States were let go by the accounting company EY (Ernst & Young) in May 2024 after it was discovered that they were participating in several online training courses during "EY Ignite Learning Week." Although several employees claimed they were not aware of the infraction, this behavior was deemed to be against internal regulations and a breach of professional ethics. This event followed EY's $100 million fine for professional certification exam cheating in 2022.

Business Insider (2024) EY fired staff for an ethical breach after they watched multiple online training courses at the same time. Available at: https://www.businessinsider.com/ey-fired-staff-ethical-breach-watching-online-training-courses-2024-10 (Accessed: 21 April 2025).​

**Duty to Relevant Authority – Trách nhiệm với tổ chức có thẩm quyền**

Professionals ought to treat the organizations they work for with integrity, openness, and responsibility.   
  
**Application to EPL:** Developers ought to notify management of any possible security threats or system malfunctions rather than keeping them a secret out of concern for possible legal repercussions.   
  
**Example**: In 2020, an Uber engineer was charged with hiding a system hack rather than reporting it right away, which resulted in a significant decline in customer trust.

BBC News (2020) Uber 'covered up' data breach affecting 57 million users. Available at: <https://www.bbc.com/news/technology-42161823> (Accessed: 21 April 2025).

**Duty to the Profession – Trách nhiệm với ngành nghề**

Reputational harm to the industry must be avoided, professionalism must be upheld, and skills must be updated.

**Application to EPL:** In order to make sure that the system is compliant and does not present a risk to the company, software engineers must keep up with the latest GDPR data security regulations.   
  
**Example:** British Airways was fined £20 million for its 2018 GDPR violation, which was caused by system security flaws.

Information Commissioner’s Office (ICO) (2020) British Airways fined £20m for data breach. Available at: <https://ico.org.uk> (Accessed: 21 April 2025).

**Conclusion:**

An essential tool for EPL in creating a moral, open, and legally acceptable e-training system is the BCS Code of Conduct. EPL must make sure that the code's tenets are comprehended and followed throughout the development process when collaborating with system developers. In addition to lowering legal concerns, this increases organizational credibility and user trust. However, adhering to the BCS Code of Conduct also aids EPL in building a strong professional base for upcoming IT initiatives.

**Section A- Produce an Executive Summary**

1. Purpose

The purpose of this executive brief is to assess if the DSDM Atern agile approach is appropriate for Edu Path Ltd (EPL) in the development of its e-training system. It evaluates DSDM Atern's advantages and disadvantages in relation to EPL's goals and takes into account new information to bolster its conclusions. ​

1. **Structure**
2. **Introduction**

A computerized e-training system will be put in place by Edu Path Ltd (EPL) to make it easier to register candidates, organize courses, and monitor progress. EPL is thinking about implementing an agile development methodology, notably DSDM Atern, which is renowned for its business-focused and iterative delivery framework, in light of the changing needs of stakeholders and the significance of on-time delivery (Venema, 2024). It's

1. **Advantages of DSDM Atern for EPL**

Active user participation supports EPL's requirement to continuously collect input from educators, administrators, and students (Venema, 2024).  
  
EPL can prioritize important features and provide value sooner thanks to incremental and iterative development (Venema, 2024).  
  
Timeboxing ensures that projects are completed on schedule by supporting set deadlines (Venema, 2024).  
  
Effective communication in cross-functional teams is ensured by clearly defined roles and responsibilities (Venema, 2024). ​

1. **Disadvantages of DSDM Atern for EPL**

demands a high level of stakeholder participation, which EPL may find difficult given its low resources (Venema, 2024).  
  
Stakeholder disputes may arise from improper management of MoSCoW prioritizing (Venema, 2024).  
  
It is assumed that the scope and business case are well-defined, something that EPL may not do at the outset (Venema, 2024). ​

1. **Case Study Insights**

DSDM's focus on early delivery and flexible iteration is in line with EPL's requirement for quick delivery of essential features (such candidate registration) and flexibility in response to changes (Venema, 2024). This implies that DSDM can assist EPL in successfully managing changing educational demands. ​

1. **Conclusion and Recommendation**

In conclusion, DSDM Atern is appropriate for EPL's e-training system because to its organized delivery method and adaptability to change, even though it has drawbacks with regard to stakeholder participation and scope clarity.  
To optimize the framework's efficacy, it is advised that EPL implement DSDM Atern, guaranteeing active stakeholder participation throughout the development lifecycle. It's

Venema, M. (2024). Dynamic Systems Development Method (DSDM): How To Be And Do Agile? NimbleWork. Available at: <https://www.nimblework.com/agile/dynamic-system-development-method-dsdm/> (Accessed: 21 April 2025).​