



Alliance with  Education

**UNIVERSITY OF
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**COMP-1787-M02-2022-23 –
Requirements Management**

Coursework

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I. Introduction

Brightstar (BL) is a distinguished UK-based charity dedicated to providing academic and sporting scholarships to exceptional students. Through their partnership with leading universities and colleges, BL has successfully administered hundreds of scholarships across the nation.

BL operates through three prominent divisions: The Fundraising Department, the Scholarship Application and Administration Department, and the Treasury Department, which together support the organization's mission with a team of dedicated professionals. In addition, BL boasts a small yet sophisticated IT Department that specializes in providing top-notch IT infrastructure and support, ensuring seamless operations across all other departments.

With their cutting-edge web-based platform for scholarship management, BL's IT team has revolutionized the scholarship application process. This comprehensive platform enables applicants to register, track their applications and allows staff from all departments access to a range of tools, enabling them to evaluate and score applications effectively.

Brightstar (BL) has always been at the forefront of scholarship administration, revolutionizing the academic and sporting landscape for students across the UK. Their innovative web-based platform has enabled BL to successfully identify the most suitable candidates for each scholarship, ensuring deserving students can achieve their academic and sporting goals.

Recognizing the growing interest in esports scholarships, BL has recently decided to expand into this exciting field. However, their current information system is not equipped to handle the registration and selection process for esports candidates. In response, Flo Johnson, head of IT, proposed building a highly functional prototype system using an Agile approach, promising to complete the prototype within three months. This innovative approach demonstrates BL's commitment to staying ahead of the curve and offering students every opportunity to succeed.

Additionally, BL has developed a system to assist the treasury department in keeping track of funds, their allocation, and application. However, to ensure seamless data synchronization between the platform and the institution's banking system, BL is prioritizing the development of a synchronization system. By minimizing the risk of errors, BL can ensure the most efficient and effective use of its financial resources.

While the selection process at BL still involves a significant level of human interaction, the organization has continuously improved and perfected the system to provide the highest level of automation. This modernization enhances the service quality for students and partners of the institution, proving that BL is committed to providing the best possible experience for all involved.

II. High level requirements analysis and MoSCow prioritization

Table 1: Requirement does not match high level requirement

No.	Requirement does not match high level requirement	Explain
1.	a login option	Requirements are specific to a certain function only and are more limited than high-level requirements. High-level requirements address the entire project and help provide an overview of the functions and features the system should provide. "Login facility" is just one of the detailed requirements for the login functionality. It does not provide information about the purpose of the system or key features and other functions. So that can't be considered a high level request.
2.	Create preliminary application forms using the criteria for each category.	It's not a high-level requirement for the system, but a more specific one. High-level requirements are more abstract in nature and cover the general purpose of the system or product. On the contrary, this requirement focuses on specific tasks in the process of perfecting the system. This represents the application compilation requirement for each category. Therefore, this is a detailed and specific requirement, related to the operation or implementation of the system.
3.	Candidates must be able to log into the system and register.	The above requirement is a more specific requirement, not a high level requirement for the system. High-level requirements will be more general and abstract, helping to guide the general purpose of the system or product, rather than the detailed requirements of each functional cluster. In the process of prioritizing the

		system, it is important to focus on system-wide goals, such as providing users with a better online check-in experience or providing users with additional features. secure login information. If compared with the above requirement, then it is just a specific feature of the system.
4.	several categories of e-sports	The requirement is not a high-level requirement for the system because it is a concrete requirement, not the abstraction of the high-level requirement. High-level requirements are more general and abstract requirements that help define general goals for the system or product rather than specific detailed requirements. "Different eSports Categories" is simply a detailed and specific requirement, describing system features or functionality, which cannot reflect the overall purpose of the system. We need to focus on the higher level requirements for general purpose tuning of the system.
5.	Keep in mind that necessary components of the old system must be removed, added to the prototype, and tested. Remember them; they ought to be a part of the requirements. You should be aware of these, therefore I won't mention them.	The requirements mentioned above are not high-level requirements, but are often more general and abstract requirements that help define the general purpose of the system or product, not the details of the system's features or functionality. system. This requirement only provides guidance on how the system development process should work, including integrating parts of the old system into the prototype for feasibility testing of the new system. However, it does not introduce any abstraction or general-purpose requirements of the system. Therefore, to define the overall goal of the system, one should focus on the more abstract and high-level requirements that help guide the product or system development strategy.
6.	The system should allow candidates to provide context-sensitive information when	This requirement is also a specific requirement, not a high level requirement for the system. High-level requirements are often more general and abstract in

	submitting an application for a scholarship.	nature, helping to guide the general purpose of the system or product rather than specific detailed requirements. The general purpose of the system could be to ensure that applicants can easily apply for a scholarship and provide all the information needed to review their application. Instead of focusing on specific requirements as above, we should focus on higher-level requirements to create a system that is highly applicable and meets the overall purpose of the system.
7.	Users must find the system easy to use, and you must demonstrate that you are familiar with each genre and respect the different types of video games, otherwise they won't feel comfortable putting their trust in you.	This requirement is not a high level requirement for the system. High-level requirements are often more abstract and general requirements that help guide the overall goal of the system or product, rather than the details of the system's features or functionality. The above requirement concerns only the user-friendly aspect, not the more abstract and general requirement. To ensure the success of the system, we need to focus on more abstract requirements that help define the overall purpose of the system and meet the needs of users and partners of the product. .
8.	Candidates must be able to see the scholarships that are available.	This is a more specific requirement, not a high level requirement for the system. High-level requirements are often more abstract and general requirements that help guide the overall goal of the system or product, rather than detailed system functionality or feature requirements. The system's priority may be to provide the best end-user experience, by offering existing scholarship programs and helping users find the scholarship program that best suits their needs. In addition, the system should also provide sufficient information about enrollments and other levels of financial aid to help users make decisions that suit their needs.
9.	Users should receive automatic	This is a specific requirement, not a high level

	notifications from the system after completing tasks like registration or the successful submission of an application.	requirement for the system. High-level requirements are often more abstract and general requirements that help guide the overall goal of the system or product, rather than detailed system functionality or feature requirements. The overall purpose of the system can be to provide a good user experience and minimize errors during the use of the system. To achieve this overall goal, we need to take care of the higher level requirements to determine the suitability of the system to the user's needs and solve the debugging and error challenges.
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Table 2: Necessary Requirement

No.	Necessary Requirement	Function/Non-Function	Explain
1.	By keeping track of deadlines, configuring alerts, and taking notes on the system, we should be able to handle active scholarships.	Function	The mission of the scholarship administrator is to ensure the accuracy and reliability of the system, which helps to reduce the risk of errors in the implementation process and to reduce damage to applicants.
2.	Throughout the selection process, applicants should be able to monitor the status of their applications.	Function	If users don't have the app's status update feature, they'll have to regularly contact support for the latest information on their app's status and wait a long time for updates the current status of the application.
3.	The system should enable contact with organizations, people, and other donation sources.	Function	The scholarship management system needs to be able to connect and exchange information with funding sources, helping scholarship managers understand information about financial sources that can support and motivate individuals. and businesses participate in contributing and supporting

			scholarship programs.
4.	The system should make it easier to compile contact and mailing list databases.	Function	The scholarship management system should be able to store contact information so that the administrator can perform activities related to financial management, manage applicants' records, and communicate with individuals. Individuals or organizations participate in scholarship activities easily and conveniently.
5.	There must to be resources accessible to aid in selecting the top applicants. While some of the available tools would be useful, many more would need to be created.	Function	The process of selecting candidates for scholarships is a complex and important one that requires a variety of criteria to be evaluated. Therefore, the introduction of tools used to select the best candidates will help improve the efficiency of this process.
6.	The program must operate quickly and effectively.	Non-Function	When the scholarship management system is slow and unresponsive, users will have difficulty entering information and logging into the system. This situation can lead to dissatisfaction of the candidate and increase the difficulty and waiting time, creating inconvenience and difficulty for the candidate.
7.	a system for monitoring financial resources, their distribution, and the potential uses for them.	Function	With this feature, the scholarship management system can help organizations manage and allocate funding efficiently. This helps to reduce errors in granting and administering scholarships and ensures accuracy and transparency in funding management.

8.	We must be able to inform applicants of their status.	Function	If the system does not have a function to notify the candidate's successful or not, it can cause insecurity and anxiety in the waiting process and waste time and opportunities for candidates. .
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Table 3: Moscow/Time box rules

No.	Moscow rules	Function/Non-Function	Development time	Necessary Requirement
1.	Should Have	Function	8 days	To select the best candidates, we need to use the right support tools. Although there are currently a number of tools to support recruitment, but to be effective in the process of analyzing and evaluating candidates, we still need to develop many other tools.
2.	Must Have	Function	10 days	By monitoring deadlines, creating notifications and taking notes on the system, we will have the ability to manage ongoing scholarship programs.
3.	Should Have	Function	10 days	The system will provide the function of communicating with businesses, individuals and other funding sources.
4.	Should Have	Function	11 days	Provides a platform to monitor funds, how to allocate them and where to apply.
5.	Could Have	Function	9 days	The system will facilitate the

				comparison of contact list and mailing list easily and conveniently.
6.	Must have	Function	8 days	We need to be able to communicate the results to applicants as to whether they were successful or not.
7.	Could Have	Function	14 days	During the selection process, candidates will be able to track the status of their applications easily and conveniently.

Summary: During system development, the total number of days to complete is 70 days. In which Moscow rules, the function should have 18 days in total 70 days, which proves that the function should account for nearly 26%.

III. Legal, Social, Ethical and Professional issues

3.1 Definition Data controller

3.1.1 Definition

The data controller plays an important role in determining the purpose and method of processing personal data. If your company or organization decides on 'why' and 'how' to process personal data, it is the data controller. Data processors in your organization do this to fulfill their duties as data controllers.

However, if your company is one of the parties that jointly determine the purposes and methods of processing personal data with one or more other organizations, your company will be the data controller. shared. In this case, the data controllers must enter into and agree to the respective agreement to comply with the GDPR rules.

Key aspects of this agreement must be clearly communicated and explained to the individuals whose data is processed. The responsibilities of the joint data controllers must be defined, and who will be responsible for that responsibility must also be clearly defined in the agreement.

A third party may be appointed to process your personal data on behalf of the data controller. These third parties are usually service providers outside of your company. However, in the case of business groups, one business can be assigned to act as handler for another business.

It is important for your company/organization to identify who the main data controller is to ensure compliance with GDPR rules and to keep personal data processing transparent and transparent public. (commission, 2023)

3.1.2 The responsibilities of a Data Controller

The data controller is central to ensuring compliance with GDPR rules within an organization. Data controllers must ensure that all personal information collected within their organization complies with GDPR regulations, including decisions on the following:

- Legal authority to collect personal information of customers, website visitors and other targets. The data controller should ensure that the holder of ownership of personal information is informed and consents to this collection.
- Determine the information to be collected, including the type of information, the amount of information, and the source of the information. This information should only be collected if there is a specific and clear purpose.
- For changes or modifications to collected data, the data controller must ensure that the process is carried out quickly, completely and accurately to meet GDPR requirements.
- Decide where and how to use the data and for what purposes. The data controller should ensure that personal information will be used for the right purposes and only with the consent of the information owner.
- Determine whether to keep data in-house or share it with third parties. If data must be shared, data controllers should clearly identify with whom and ensure that the standard of protection is equivalent to GDPR regulations.
- Decide how long to keep data, including when to process it. The data controller must ensure that personal information is only kept for as long as is necessary and is handled and secured correctly and securely. (Brook, 2023)

3.1.3 Important to Understand Your Role

The division of roles between data controllers and data processors is an important factor in the implementation of GDPR. This means that organizations and their external service providers must be clear about what role they are playing and must bear their respective responsibilities.

The data controller is responsible for managing and controlling the collection, storage and use of personal information. They must manage the collection and use of personal data at a granular level and ensure that users are informed of these activities and consent to their data being collected and used.

Meanwhile, the data processor is responsible for processing personal information at the request of the data controller. They may only use personal information to perform their assigned work and may not use it for any other purpose. They must also ensure that security measures are taken to protect personal information.

This clear division of roles will help reduce legal risks and enhance transparency in the handling of personal information. If there is a data breach, clearly distinguishing roles helps data controllers and data processors limit the level of risk and ensure that they are fully compliant with GDPR requirements.

However, for some companies and their external service providers, the clear division of these roles may not be as clear as the example above. Therefore, GDPR has outlined the specific roles and responsibilities that a data controller or data processor must perform to ensure transparency and effectiveness in the protection of personal information.

3.2 Legal, Social, Ethical and Professional issues

Legal issues: One legal issue that BL can face is data protection and privacy. The web-based platform for scholarship management contains sensitive personal information about applicants and students, which must be kept confidential and secure in accordance with data protection laws. A practical example of this is ensuring that an applicant's personal information can only be accessed by authorized personnel in the BL.

Social issues: BL may face social issues related to fairness and equity in scholarship distribution. There may be concerns about whether the scholarship application and selection process is truly merit-based and does not discriminate on the basis of factors such as race, ethnicity, gender or socioeconomic status. association or not. A practical example of this is ensuring that the grading criteria used to evaluate scholarship applications are objective and based on unambiguous criteria.

Ethical Issues: Ethical issues that BL may face include ensuring that the scholarship and application process is transparent and fair, and avoiding conflicts of interest. For example, there may be concerns about whether scholarships are awarded to students who have a personal relationship with an employee or sponsor. A practical example of this is implementing clear conflict of interest policies for employees involved in the selection and scholarship application process.

Professional matters: BL must ensure that its employees act in a professional manner and maintain the highest standards of conduct. This includes maintaining professional and ethical standards in fundraising and fund management. A real-life example of this is developing a code of conduct for employees that outlines expectations for ethical behavior and professionalism in all aspects of their work.

IV. Conclusion

In conclusion, the development of a new system at Brightstar (BL) is a critical initiative to support the organization's mission to provide academic and sporting scholarships to exceptional students. The high-level requirements analysis and MoSCoW prioritization, as well as the consideration of Legal, Social, Ethical, and Professional Issues, are crucial components of this project.

Through the review and update of the high-level requirements list, it is essential to ensure that only appropriate functional and non-functional requirements are included, reflecting the organization's needs for building the system. The use of the MoSCoW/Timebox rules allows for a prioritized list of requirements, ensuring that the essential components are addressed and delivered incrementally within set timeframes.

Moreover, the introduction of the role of the Data Controller in BL is a significant step towards ensuring that the organization complies with legal requirements around data protection and privacy. The management summary emphasizes the potential legal, social, ethical, and professional issues that BL may encounter in its day-to-day operations and provides practical examples to highlight the significance of each.

Overall, the successful implementation of this project will require the collective effort and collaboration of all stakeholders involved, aiming to achieve BL's mission and deliver the best possible experience for students and partners of the institution.

References

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