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# Introduction

This report describes the Brightstar (BL) charitable organization in the United Kingdom and its scholarship application and administration system. In addition, the report describes the organization's decision to expand into e-sports scholarships and the subsequent need for a new information system to support this expansion. The report also outlines the key requirements for the new information system, including the ability to manage and track scholarship applications, monitor student progress, and integrate with existing financial systems. Furthermore, it highlights the potential benefits of e-sports scholarships in promoting STEM education and diversifying scholarship opportunities. The report highlights the difficulties encountered by the IT department in integrating e-sports functionality into the existing system, as well as their decision to implement an Agile methodology to develop a prototype system. This report is intended to briefly reinforce an Agile methodology by enumerating 'high-level requirements' derived from staff feedback as well as updating and stating new requirements tailored to the project. Furthermore, the report emphasizes on legal, social, ethical, and professional issues. The report concludes with a summary of the requirements collected during a facilitated workshop, as well as a description of the development's priority and schedule.

# Section A – Management Summary

Brightstar's (BL) motivation behind the e-sports scholarship initiative is its desire to stay current and increase its fundraising efforts. BL sees a potential to create ties with sponsors and introduce new scholarships in this sector given the rise in popularity of electronic sports (e-sports) and the rising number of profitable events. By providing e-sports scholarships, BL aims to attract talented students who may not be interested in traditional academic or athletic scholarships.

The main motivations for this initiative are to enhance the amount of scholarships that are made available by BL, to attract new donors and sponsors, and to grow the organization's reach and effect. The new e-sports scholarship system will enable BL to manage the application and selection processes more efficiently and effectively, as well as provide a blueprint for future integration with the current scholarship management system. Furthermore, BL will be able to diversify its revenue sources by building ties with sponsors and benefactors interested in e-sports thanks to this project. This initiative will not only benefit the e-sports community but also enhance BL's reputation as a forward-thinking institution that supports innovation and emerging fields. It may also attract more students who are passionate about e-sports and looking for opportunities to pursue their dreams while obtaining a quality education. Agile methodology is a project management strategy that is frequently employed in software development. Agile's main ideas are iterative and incremental development, collaboration between cross-functional teams, and a focus on frequently delivering software that works. Agile methodology prioritizes adapting to change over adhering to a plan and places a premium on customer contentment through the continuous delivery of high-quality software. Due to its numerous advantages, the agile methodology has grown in popularity over the past few years. One of the primary benefits of Agile is its adaptability, which enables teams to rapidly deliver functional software and adapt to changing circumstances. This methodology also emphasizes collaboration and communication among team members, which can lead to improved results and more efficient workflows. Continual feedback and iterations ensure that the final product suits the customer's requirements. However, Agile does have some drawbacks, such as the potential for scope expansion and the inability to foresee project timelines. Agile is a popular option for software development initiatives despite these drawbacks due to its many advantages.

In the context of this undertaking, an agile methodology would enable greater responsiveness to changing customer needs and market conditions. By breaking the project into smaller, more manageable pieces and placing a high priority on delivering working software often, the team can keep refining and improving the product as it is being made. This approach also allows for more frequent feedback from stakeholders, which can be incorporated into the development process, leading to a better end product that meets the needs of the customer and the market. Additionally, agile methodologies promote collaboration and communication within the team, leading to a more efficient and effective development process. This method has the potential to expeditiously and effectively provide a product that fully satisfies consumer demands.

# Section B – High level requirements analysis and MoSCoW prioritisation

## B1 - Inappropriate High-Level Requirements and the reason

The High-Level Requirements list the system's principal responsibilities and functionalities. It should contain a detailed list of all the activities and features that must be completed during the project (Wrike, n, d). Criteria that do not fulfill the High-Level Requirements, as highlighted by stakeholders during the meeting.

|  |  |  |
| --- | --- | --- |
| ID | User stories | Reason (Why is it not suitable?) |
| 1 | The project's high-level requirements include a registration function, a system for tracking funds and allocating them, and synchronization with the organization's banking system | The requirement for a registration function is insufficiently detailed, as it does not specify who will use the system or what form of authentication is required. The requirement for tracking funds and their allocation is also insufficiently specific, as it does not specify what types of funds are to be monitored or how they are to be allocated. In addition, the requirement for synchronization between the system and the organization's finance system is too ambiguous, as it does not specify the type of data that must be synchronized or the method by which it will be performed. |
| 2 | The high-level requirements include adding a category for e-sports benefactors, having a rapid and responsive system, allowing communication with various sources of donations, supporting event planning, and facilitating the compilation of contact and mailing lists. | While these requirements provide a general concept of what the fundraising team desires, they lack specificity and measurable criteria. Likewise, the requirement for facilitating the compilation of contacts and mailing lists does not specify which types of contacts and mailing lists must be included. These flaws could lead to misunderstandings between the fundraising team and the development team, resulting in a system that does not satisfy the fundraising team's requirements in full. |
| 3 | The high-level requirements include categorizing various e-sports, consulting with experts to determine suitable criteria for each category, compiling the criteria into preliminary application forms, and providing tools to select the most qualified candidates. | While these requirements provide the project with a general direction, they lack specificity and detail. Similarly, the requirement to provide tools for selecting the finest candidates does not specify which tools should be developed or how they should be utilized. Without more specific requirements, the project may lack focus and direction, resulting in development disarray and delays. |
| 4 | The list of high-level requirements includes several features required for a scholarship application and administration system. | Although these requirements are essential, they lack specific information on how they will be implemented, what technologies will be used, and how they will be integrated into the system. In addition, prospective security concerns, such as data encryption and access controls, are not addressed by the requirements. Without these specific details and considerations, it may be difficult to ensure that the system is secure and reliable and meets the requirements of all stakeholders. |
| 5 | The 'high level needs' document is a summary of the project's broad aspirations and desired outcomes. | The scope of these requirements is broad and they provide a general direction for the project, but they lack specificity and detail. It is difficult for project teams to develop distinct and executable plans because the requirements are too vague and ambiguous. This can contribute to miscommunications and misalignment among stakeholders, resulting in delays and cost overruns. In addition, high-level requirements may not adequately convey the complexities and subtleties of the project, leaving critical details unaddressed. |
| 6 | High-level requirements include the ability for applicants to register, view available scholarships, receive automatic notifications, provide context-sensitive information when applying for a scholarship, and utilize a user-friendly interface that demonstrates knowledge of and respect for different electronic games. The high-level requirements list provides an overview of the system's desired features, which is beneficial during the project's early phases. | It lacks specificity and may not provide the development team with sufficient direction. In addition, the requirement for a user-friendly interface that demonstrates knowledge and regard for various electronic games is subjective and difficult to quantify. The high-level requirements could lead to ambiguity, miscommunication, and delays in the development process. |

## 

## B2 - ‘Updated’ high level requirements

Following careful examination of the proposed needs of the stakeholders and the elimination of any superfluous high-level requirements. We looked over many high-level criteria created by management and individuals in charge of different departments. To make the project work better, we modified some of the requirements. The following are some of the most recent and essential high-level requirements for constructing the system:

|  |  |  |
| --- | --- | --- |
| No. | Updated High level requirements | Purpose |
| 1 | For data to remain private and only accessible by approved users, the system must have strong authentication and permission features | This is essential for protecting the confidentiality, availability, and integrity of sensitive data, such as consumer information. |
| 2 | The system should have a user-friendly interface that facilitates easy navigation and interaction. | This will increase user satisfaction and productivity while decreasing the likelihood of errors resulting from user perplexity. |
| 3 | The system should be designed to preserve the integrity and precision of data and to prevent unauthorized alterations or deletions. | This is necessary to ensure the system generates accurate reports and maintains a high level of data quality. |
| 4 | The system should be scalable to accommodate future expansion and shifting business requirements. | This indicates that the system should be able to accommodate a growing number of users, transactions, and data volumes without sacrificing performance or stability. |
| 5 | It is necessary for the system to be equipped with stringent safety precautions so that it can defend itself against both internal and external dangers. This includes encryption of data, network security, and access controls. | By implementing these security measures, BL is able to provide a secure and trustworthy platform for its users, thereby contributing to the system's credibility. |
| 6 | Even under extreme stress conditions, the system should provide quick and responsive performance. | This is essential to ensure that users can swiftly access the information they require and efficiently complete their duties. |
| 7 | The system must include sophisticated reporting and analytics features so that users may acquire understanding of their business's performance and make educated choices. | This will allow the organization to identify improvement opportunities and optimize business operations. |
| 8 | The system must be compatible with other systems and applications utilized by the organization. | This will assure seamless data sharing between systems and reduce the need for manual data entry and processing. |

In general, these requirements have been determined based on the demands of the company and the users of the system, and they are necessary for the construction of a dependable and efficient system that satisfies the business goals and objectives.

## B3 – MoSCoW/Timeboxing priority

The dynamic systems development method (DSDM) is where the MoSCoW approach got its start, and understanding this approach will help you grasp its fundamental ideas. It is a framework for Agile project management developed by practitioners with the intention of improving the quality of rapid application development (RAD) procedures. Early determination of quality, cost, and time is a defining characteristic of DSDM initiatives. In light of this, all project duties must be assigned according to their relative importance. A specialized prioritization mechanism was developed in response to the need to manage priorities. This mechanism was implemented using MoSCoW, a straightforward yet effective method for establishing priorities with or without time constraints. However, if you have a specific deadline for a task, feature, sub-feature, functionality, etc., you will demonstrate greater productivity. The framework is applicable to all levels of project prioritization, from the highest to the lowest, as well as to all functions and areas of focus.

Except for the o's, the first letters of the priority groups are carved into the MoSCoW abbreviation. These are the Must-have, Should-have, Could-have, and Won't-have segments (Korolov, 2023).

* **Must-haves:** These are essential requirements that form the basis of the primary pipeline. By avoiding them, the entire project or further activities will be halted. Product conception typically relies solely on delineating must-haves using indicators such as 'required for launch', 'required for safety', 'required for validation', 'required to deliver a viable solution', etc. (Korolov, 2023).
* **Should-haves:** This requirement is of secondary importance. Should-haves have no impact on the launch and are traditionally regarded as important but not essential. They differ from must-haves in that a remedy is available. Therefore, it is unlikely that the failure of a should-have task will result in the failure of the entire endeavor. Even if these requirements are not met when developing a product, it will still be usable (Korolov, 2023).
* **Could-haves:** The following requirement is less essential than the two preceding ones, but it is still desired. Comparing could-haves to should-haves, the former is characterized by a lesser degree of negative consequence if omitted. Traditionally, the third-level priority requirements of the Agile framework MoSCoW are met if a project's time constraints are not extremely tight. In terms of product development, we can refer to these as low-cost modifications (Korolov, 2023).
* **Won’t-haves:** This form of requirement can also be encountered under the names would-have and wish-to-have, but these variants are not recognized by the Wiki. Regardless of the name, these requirements designate the lowest priority for tasks that cannot be completed within a specified budget and timeframe. Will-not-have does not imply a total rejection of an item. It envisions future reintroduction under auspicious conditions (Korolov, 2023).

Following that, I will discuss Timeboxing in Agile method briefly:

Timeboxing is a predetermined period of time. When that time period expires, the objectives will have been achieved. Typically, the objective is the conclusion of a specific activity or function (Agile Business Consortium, 2019). A Time Box typically lasts between two and four weeks, allowing the development team to concentrate on a single important task without being distracted by other projects.

### B3.1 - List of high-level requirements with priorities

|  |  |  |  |
| --- | --- | --- | --- |
| No | Requirements | Priority level | Timeboxing |
| 1 | For data to remain private and only accessible by approved users, the system must have strong authentication and permission features. | Must have | 2 weeks |
| 2 | The system should have a user-friendly interface that facilitates easy navigation and interaction. | Must have | 4 weeks |
| 3 | The system should be designed to preserve the integrity and precision of data and to prevent unauthorized alterations or deletions. | Must have | 3 weeks |
| 4 | The system should be scalable to accommodate future expansion and shifting business requirements. | Could have | 2 week |
| 5 | It is necessary for the system to be equipped with stringent safety precautions so that it can defend itself against both internal and external dangers. This includes encryption of data, network security, and access controls. | Should have | 3 weeks |
| 6 | Even under extreme stress conditions, the system should provide quick and responsive performance. | Could have | 2 weeks |
| 7 | The system must include sophisticated reporting and analytics features so that users may acquire understanding of their business's performance and make educated choices. | Could have | 2 weeks |
| 8 | The system must be compatible with other systems and applications utilized by the organization. | Should have | 3 weeks |

**Reason for setting priority**

* For the first requirement, this requirement has the highest priority level, Must have, because it is crucial to the project's success. Without robust authentication and permissions, the system would be incapable of protecting sensitive data from unauthorized access.
* For the second requirement, this requirement has a priority level of Must have because it is essential to the usability of the system. A user-friendly interface is essential to ensuring that users can conduct their tasks without difficulty or confusion.
* For the third requirement, this requirement has a Must have priority level because it is essential for preserving the precision and integrity of data. Without suitable security measures, the system would be susceptible to unauthorized data modifications or deletions.
* For the fourth requirement, this requirement has a Could have priority because it is not essential to the project's success, but it would be advantageous if the system were flexible and adaptable to accommodate future business requirements.
* For the fifth requirement, this requirement has a Should have priority level because it is important for the system to have appropriate safety precautions in place to assure data security, but it is not essential for the system's functionality.
* For the sixth requirement, this requirement has a Could have priority because, while it would be advantageous for the system to perform well under duress conditions, it is not crucial to the project's success.
* For the seventh requirement, this requirement is assigned a Could have priority level because, while it would be useful for the system to have sophisticated reporting and analytics capabilities, it is not essential to the system's functionality.
* For the eighth requirement, this requirement has a Should have priority level because it is required for the system to integrate with other systems and applications within the organization, but it is not required for the system's functionality.

The MoSCoW prioritization technique assists project teams in concentrating on the most essential requirements and ensuring that they are delivered on time and within budget. By prioritizing requirements in this manner, project teams can manage stakeholder expectations and prevent scope expansion. By designating timeframes to each requirement, we can ensure that the most important requirements are implemented within the shortest timeframe, while allowing sufficient time for testing and refinement. The non-negotiable requirements are indispensable to the system's operation and cannot be compromised. The should-have requirements are crucial but can be implemented at a later time if necessary. The could-have requirement is preferable, but not required, and can be considered if time and resources permit. The won't-have requirement is considered less important and can be dropped without affecting the core functionality of the system.

# Section C – Legal, Social, Ethical and Professional issues

## C1 – The Role of Data Controller

The Data Controller is a crucial role within Brightstar (BL) that is responsible for overseeing the company's data processing activities and ensuring that they comply with relevant data protection regulations. The Data Controller is the individual who is ultimately accountable for how the company processes personal data and ensures that the rights of data subjects are respected. The Data Controller is responsible for determining the purposes and means of the processing of personal data within the organization. They must ensure that data is processed lawfully, fairly, and transparently, and that appropriate technical and organizational measures are in place to protect personal data against unauthorized or unlawful processing and accidental loss, destruction, or damage. The Data Controller is also responsible for ensuring that individuals are informed about the processing of their personal data, their rights, and how they can exercise them. This includes ensuring that appropriate notices and consent mechanisms are in place, and that individuals are able to exercise their rights under data protection law, such as the right to access, rectify, erase, restrict, or object to the processing of their personal data.

As Brightstar (BL) administers hundreds of scholarships, it is likely to handle a substantial quantity of confidential information, such as scholarship applicants' names, addresses, and academic records. It is therefore crucial that BL appoints a Data Controller to supervise the administration of this data and ensure that it is handled in accordance with data protection laws. The Data Controller will work closely with the IT division and the scholarship application and management team to ensure that personal information is protected and used appropriately. This will entail undertaking regular data protection audits, implementing appropriate security measures to safeguard personal data, and ensuring that employees are trained in data protection best practices.

Ultimately, the Data Controller is responsible for ensuring that BL processes personal data in a manner that is compliant with data protection laws and regulations, ethical, and respectful of the privacy rights of data subjects. By designating a Data Controller and ensuring that the role is adequately resourced, BL can demonstrate its commitment to data protection and foster customer and stakeholder confidence.

## C2 - Legal, Social, Ethical and Professional Issues (LSEPI) in the project

Legal, social, ethical, and professional considerations (LSEPI) are crucial for any organization operating in today's complex and interdependent world. Brightstar's (BL) adoption of a new scholarship system for e-sports presents several prospective LSEPI challenges that must be addressed.

* **Legal Issues:**

Data protection, intellectual property, and other legal restrictions may cause problems when handling private data. The General Data Protection Regulation (GDPR) and other data protection rules require that BL's new system secure personal information and the intellectual property of third parties. The requirement for BL to hire a Data Controller to manage personal information is an example of a lawful concern arising from this case study.

* **Social Issues:**

Social issues may involve the impact of BL's activities on the larger community and the possibility of discrimination or social exclusion. BL will need to take into account the diversity of its scholarship applicants and ensure that its selection criteria are equitable and transparent, regardless of the applicants' backgrounds or identities. The potential for e-sports scholarships to attract a specific demographic, such as young men, while excluding other groups is an example of a social issue in this case study.

* **Ethical Issues:**

Ethical issues may pertain to the values and principles underlying BL's activities as well as the potential repercussions of these activities on individuals and society. BL will need to ensure that its e-sports scholarships align with the organization's charitable mission and do not compromise its ethical principles. In this case study, an example of an ethical issue is the possibility that e-sports scholarships will promote gaming addiction or divert students' attention away from their academic studies.

* **Professional Issues:**

Professional issues may involve the conduct and behavior of BL's employees as well as the organization's dedication to professionalism and ethical standards. BL will be required to ensure that its employees are adequately trained and supported to perform their roles effectively and ethically, and that they adhere to applicable professional codes of conduct. To ensure that the new e-sports scholarship system is developed efficiently and meets the organization's requirements, the IT division must adopt an appropriate development methodology, such as Agile.

# Overall, Brightstar (BL) is a nonprofit that is branching out into e-sports scholarship funding. The IT division of the organization has proposed developing a prototype system to support the application and selection procedure for e-sports scholarships. As it develops and implements its new e-sports scholarship system, BL will need to evaluate a number of LSEPI issues. By addressing these issues in a proactive and transparent manner, BL can ensure that its activities are aligned with its charitable mission and promote the best interests of its scholarship applicants, the larger community, and society as a whole. This proposition presents a number of obstacles, including legal, social, ethical, and professional concerns that must be addressed. BL must appoint a data controller to oversee the processing of personal information and ensure compliance with data protection laws. In addition, the organization must consider the ethical implications of providing e-sports scholarships, such as the impact on student health and well-being. When devising the scholarship selection procedure, social issues such as gender and ethnic equality must also be taken into account. Finally, BL must ensure that the new system is developed professionally and in accordance with industry standards to prevent data breaches and system failures. By addressing these issues, BL will be able to successfully implement e-sports scholarships and continue providing students with opportunities to pursue their academic and athletic ambitions.pt an appropriate development methodology, such as Agile.

# Conclusion

The project manager must communicate to the project's stakeholders on the project's high-level requirements. Substitute extraneous questions with more pertinent ones. The expansion of BL into e-sports scholarship opportunities presents an exciting opportunity for the organization to remain current and entice new sponsors. Developing a new system to support this expansion, however, poses a significant challenge for the IT department. Adopting an Agile methodology to develop a system prototype is a prudent decision, and the requirements garnered during the facilitated workshop provide a clear road map for future development. By utilizing an Agile methodology, the IT department is able to rapidly adapt to altering requirements and ensure that the system meets the business's needs. Involving stakeholders in the workshop ensures that their feedback is incorporated into the development process, resulting in a more successful implementation. BL can achieve their objective of providing academic and athletic scholarships to deserving students by integrating e-sports scholarships into their current system with careful planning and execution.

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