ID	Risk Description	Impact (1-5)	Likelihood (1-5)	Total (2-10)	Mitigation response
	Scale: Lowest 1 – 5 Highest				
1.	Lack of team cohesion – Conflict or barriers between members will reduce collaboration, creating disagreement and reduced productivity.	3	4	7	Monitor the team's collaboration attempts and quickly address issues between members. Create an open and accepted space to communicate frustrations effectively. Morning huddles to improve team cohesion and set goals for the day.
2.	Ambiguous team direction – No clear or certain goals to follow.	2	2	4	Create a detailed roadmap with the main objectives and timeframes to aim for. Explain exactly the role responsibilities and use effective training with every member of staff.
3.	Data collection - Students not being aware of the range of data collected for personalisation and engagement tools.	4	4	8	Create a clear notice and consent form to comply with GDPR on sign up to clearly explain what data will be collected, used and who will have access to this. Students will be required to consent to use the platform. The data will be used to improve recommendations for events and track engagement.
4.	Database leaks – Information leaks from our platform databases revealing personal information, payment details and location details.	5	2	7	Host all data securely via cloud-based technologies alongside cybersecurity mesh and data fabric strategies. (14) Complex firewall structures and reminders to create secure passwords. We could also use privacy-enhancing computation and encryption.
5.	Unexpected delays to the release date – Not being able to release on time will drastically affect customer satisfaction and decrease favour with our investors	5	3	8	Create a flexible target release date, with clear planning and a detailed roadmap. This will include continuous check ins and morning huddles to predict every step and provide accurate predictions. We will maintain frequent communication with our customers.
6.	The customer is unsatisfied and shows frustrations with the product resulting in requests to change the product or contract	5	3	8	Check in with the client frequently to ask for feedback on our updates. Request that they raise any issues or concerns they have with the product. Also create clear contract details to protect us from ambiguity and tension. Create a trustworthy client customer relationship.
7.	Poor UI/UX design – creating a low level of software accessibility will result in a negative perception of our software.	3	1	4	Prioritise accessibility options in our software. Use test groups with varying disabilities to get feedback from. Then implement all inclusivity into our software which will include support for all devices and features such as screen readers, visible fonts, and colours.
8.	Unstable network/servers – Denial of server or network attacks will dramatically affect our service, thus decreasing customer opinion and increasing frustration.	5	3	8	Employ backup servers to rely on in emergency cases, backup all data frequently, apply security on all layers (Network, Host, Application). Monitor the network regularly. Use event logging and examine frequently for suspicious activity. Use firewalls to protect from attacks. Send notifications 24 hours in advance if we need to do network maintenance. Prepare legal investigation and action if we are our software is actively being targeted.

9.	Unexpected resignation from crucial team members will negatively affect our development roadmap. (15)	4	2	6	Clear resignation instructions in the contract, 1 month notice to plan around members leaving. Favourable contracts with benefits and wellness checks on staff members. Include a 3-month probational period.
10.	Global pandemic lockdowns – This will prevent events from happening for users and create a work from home environment which can affect productivity and user satisfaction.	5	2	7	Prepare staff for working from home conditions through equipment and training. Host online events in preparation for any unforeseen circumstances. Give additional training to industry and users on the uses for online events. Prepare legal requirements to protect from spread of diseases in the case of covid for in person events if they are allowed at that time.
11.	Preparing detailed and professional contracts to protect both parties signing them including staff and customers.	4	2	6	Contracts will be completed and reviewed with the help of temporary legal aid to protect accusations of misconduct or neglect from poor contracts. Contracts will be reviewed and updated if the labour laws change. (16, 19)
12.	Theft of materials, intellectual property, or physical property. (17)	5	1	5	Legal representative will write up Non-Disclosure Agreements and compliance certificates to protect intellectual property. Security measures in our office will be strictly abided by with frequent checks and video monitoring. Insurance will be bought as a safety net.
13.	Employees facing discrimination, harassment, or unfair treatment.	4	2	6	Human resources and the legal representative will abide by the Equality act 2010 when recruiting staff and continuing into their employment period. (18) Human resources will be available to help any misconduct during the working hours and take actions to resolve the conflicts if possible.
14.	Ensuring our website includes a privacy policy and clearly lays out terms and conditions.	3	2	5	For legal protection against copyright and local laws. Terms should include content that is consistent with other laws such as misleading advertising, trademark, data protection, consumer protection. (19)
15.	Complying with The Software Engineering Code of Ethics and Professional Practice (20)	3	3	6	Every employee will be given a copy of the code of ethics when employed. During inductions, the code of ethics will be checked and referred to as a standard of work we will conduct in the company. This will help the company working space and productive.
16.	Complying with the GDPR (General Data Protection Regulations). (21) With regards to information ethics. (22)	4	3	7	Secure data structures with multi levelled security to protect identifiable data such as location data, identification numbers or private names. Special Category data or criminal background will not be required to use our platform. Data will only be used to actively enhance the users experience by recommending events based on interests and past engagement with the software. The user will be informed on what data is used and there will be an option to turn this setting off.
17.	Protection against the unauthorised access to computer material (Computer misuse act 1990). (19)	5	2	7	Restrictive measures to limit employees access to unnecessary areas that they do not have the authority to access. Strict compliance certificates to prosecute any offenders. Multi-threaded security with firewalls and encryption.

References

- 1. Lahn M. How much does a cloud server cost?. Servermania.com. 2020. [accessed 26 Nov 2021] Available from: https://www.servermania.com/kb/articles/cloud-server-prices/
- 2. Miller B. DAU vs. MAU: Everything You Need to Know About App Stickiness Metrics | CleverTap. CleverTap. 2021. [accessed 27 Nov 2021] Available from: https://clevertap.com/blog/dau-vs-mau/
- 3. Finance and support for your business. GOV.UK. 2021. [accessed 26 Nov 2021] Available from: https://www.gov.uk/business-finance-support?
- 4. Patel N. 9 Metrics to Help You Make Wise Decisions About Your Start-Up. Neil Patel. 2021. [accessed 26 Nov 2021] Available from: https://neilpatel.com/blog/9-metrics/
- 5. Web Developer salary in the United Kingdom. Uk.indeed.com. 2021. [accessed 28 Nov 2021] Available from: https://uk.indeed.com/career/web-developer/salaries
- 6. Korolev S. Lean Canvas Examples of Multi-Billion Startups. Blog by Railsware. 2021. [accessed 28 Nov 2021] Available from: https://railsware.com/blog/5-lean-canvas-examples/
- 7. Jobs. Cardiff University. 2021. [accessed 28 Nov 2021] Available from: https://www.cardiff.ac.uk/jobs
- 8. Cardiff Business School. Cardiff University. 2021. [accessed 28 Nov 2021] Available from: https://www.cardiff.ac.uk/business-school
- 9. Events. Cardiff University. 2021. [accessed 28 Nov 2021] Available from: https://www.cardiff.ac.uk/events
- 10. Maurya A. Running lean: iterate from plan A to a plan that works. O'REILLY; 2012;:1-47.
- 11. Maurya A. Capture Your Business Model in 20 Minutes Lean Canvas. 2013. [accessed 28 Nov 2021] Available from:

https://www.youtube.com/watch?v=7o8uYdUaFR4&ab_channel=AshMaurya

- 12. Railsware Product Academy. Lean Canvas Intro Uber example. 2018. [accessed 28 Nov 2021] Available from:
- https://www.youtube.com/watch?v=pvIN9STpzCQ&t=424s&ab_channel=RailswareProductAcade my
- 13. EPM. Business Model Canvas Explained with Examples. 2018. [accessed 28 Nov 2021] Available from: https://www.youtube.com/watch?v=CakUeC1sCSs&ab channel=EPM
- 14. Top Strategic Technology Trends for 2022. Gartner. 2021. [accessed 28 Nov 2021] Available from: https://www.gartner.com/en/information-technology/insights/top-technology-trends?utm-source=press-
- release&utm_medium=promotion&utm_campaign=RM_GB_2022_ITTRND_NPP_PR1_TTT22&utm_term=hubpage
- 15. Project management basics. Risk Register Example All You Need to Know About It. 2021.

[accessed 29 Nov 2021] Available from: https://www.youtube.com/watch?v=9tbe9tAwnCk
16. Hall A. 8 Legal Risks Facing Businesses - Attorney Aaron Hall. (accessed 29 Nov 2021) Available from: https://aaronhall.com/risks-businesses/

- 17. Morphy T. 20 Common Project Risks example Risk Register. Stakeholdermap.com. 2008. [accessed 29 Nov 2021] Available from: https://www.stakeholdermap.com/risk/register-common-project-risks.html
- 18. Equality Act 2010: guidance. GOV.UK. 2015. [accessed 29 Nov 2021] Available from: https://www.gov.uk/guidance/equality-act-2010-guidance
- 19. Bainbridge D. Introduction to Information Technology Law. 6th ed. Longman; 2021;.
- 20. Gotterbarn D, Miller K, Rogerson S. Software engineering code of ethics. Communications of the ACM. 1997;40(11):110-118. [accessed 29 Nov 2021] Available from: https://doi.org/10.1145/265684.265699
- 21. Guide to the UK General Data Protection Regulation (UK GDPR). Ico.org.uk. [accessed 29 Nov 2021] Available from: https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/
- 22. Mason R. Four Ethical Issues of the Information Age. Management Information Systems Quarterly. 1986;10(1):1-6.