

CITYPOINT ROOM HIRE

Business Proposal



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MOCK EXAM
T-Level Computing

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Business Context

Room Hire & Facilities Information

The client, CityPoint Room Hire, has requested that the solution provides all the essential information about rooms available for hire and their facilities. Customers depend on this information to make informed decisions when planning to hire rooms, equipments and make bookings through their business. Without any detailed information of their service in the solution, customers would be frustrated, uncertain, or even disinterested. This could lead to abandoned plans, reservations, and even choosing competitors that are easier to work with. By providing this clear information about the rooms available for hire and their facilities, it will encourage more bookings, enhance the user experience, and initiate higher engagement and revenue. Higher revenue allows CityPoint Room Hire to strengthen its market position, build connections with other business that use their service, and achieve long-term financial stability and growth.

Booking Policies & Staff Details

CityPoint Room Hire wants the solution to provide customers with information about booking policies and staff details for the company. In order for customers to have a smooth experience and have access to all the information that is needed for them before making a booking, this functionality is essential. Without clear booking policies and staff information available, customers may feel confused, uncertain, or hesitant when trying to proceed with their bookings. This could lead to misunderstandings, abandoned bookings, or a lack of trust in the business. To improve transparency, build customer confidence, and enhance the overall user experience, the booking policies and staff contact details need to be clearly drawn. This helps CityPoint Room Hire present a professional image, reduce customer inquiries, and support stronger customer relationships.

Make a Booking Request

The client has requested that the solution allow customers to book rooms for specific dates and times pending confirmation. Customers value the ability to plan events and meetings in advance, and without this functionality, they may feel restricted or inconvenienced when trying to secure a suitable room. This could result in lost booking opportunities and customers choosing alternative providers that offer more flexible booking systems. By enabling customers to request bookings for specific dates and times, the solution will rationalise the booking process, improve convenience, and encourage more booking requests. Pending confirmations also allow CityPoint Room Hire to manage availability effectively while maintaining customer satisfaction and consistent revenue.

View & Manage Bookings

CityPoint Room Hire has requested that the solution allow customers to view and manage their existing bookings. Customers appreciate having control over their reservations, and without the ability to review or manage bookings, they may feel frustrated or powerless when changes are needed. This could lead to increased cancellations, dissatisfaction, or unnecessary contact with staff.

By providing customers with access to their booking details, the solution will enhance convenience, reduce administrative workload, and improve overall user experience. This leads to better customer satisfaction, improved booking accuracy, and more efficient business operations.

Customer Accounts & Booking Management

The client requires that the solution allow customers to create personal accounts to manage their bookings and personal data. Customers value personalised and efficient experiences, and without account functionality, they may feel troubled by repeatedly entering same information. This could discourage repeat bookings and reduce customer loyalty. By implementing customer accounts, the solution will optimise the booking process, allow easier booking management, and support data security. Over time, this feature encourages repeat usage, strengthens customer relationships, and increases long-term revenue for CityPoint room Hire.

Accessibility Features

CityPoint Room Hire wants the solution to include accessibility features that support a wide range of users. Adding accessibility solutions will address issues where certain users may struggle to use digital platforms due to disabilities or other difficulties, and without these features, some customers may feel excluded or unable to complete bookings effectively. This could limit the company's reach and reduce potential bookings. By implementing accessibility features such as clear navigation, readable content, and compatibility with assistive technologies, the solution will allow CityPoint Room Hire to expand its services to a wider range of users. This enhances user experience, demonstrates inclusivity and supports business growth by increasing the potential user base and overall engagement.

Staff Admin Panel

The client has requested that the solution include a staff area to manage rooms and booking requests that the can confirm or deny. Staff require efficient tools to manage availability and booking requests, and without a dedicated management area, errors or delays may occur. This could lead to double bookings, missed requests, or operational inefficiencies. By providing a secure staff area, the solution will improve internal workflows, ensure accurate booking management, and allow staff to respond on time to customer requests. This results in smoother processes, better service quality, and improved customer satisfaction.

Project Aim

These are the essential requirements that the digital solution need to meet:

- Provide customers with information about rooms available for hire and their facilities
- Provide customers with information about booking policies and staff details for the company
- Allow customers to book rooms for specific dates and times pending confirmation
- Allow customers to view and manage their existing bookings
- Allow customers to create accounts to enable them to manage their bookings and data
- Offer accessibility features to support a wide range of users
- A staff area to manage rooms and booking requests that they can confirm or deny

Functional Requirements and User Acceptance Criteria

James - Small business owner who frequently books rooms for meetings and presentations. Values efficiency, clear information, and quick bookings.

Ethan - University student who occasionally books rooms for study groups and events. Tech-savvy and expects self-service features.

Linda - Bookings manager at CityPoint Room Hire. Manages rooms, reviews booking requests, and responds to customer enquiries.

Functional Requirement	User Story	User Acceptance Criteria	Justification
Registering	As James I want to register an account so that I can access all the features of the website.	<ul style="list-style-type: none"> Access the website homepage Select Register from the navigation bar Navigate to the registration page Enter a valid username Enter a valid email address Enter a strong password Receive validation feedback for errors Submit the registration form Receive confirmation of successful registration Be redirected to login or dashboard 	Having an account allows the user to access to all system features and personalised data. This will allow them access more resources, services, etc. By accessing this, they will have a better user experience which increases customer engagement and satisfaction.
Registering	As Ethan I want to register an account so that I can manage my bookings online.	<ul style="list-style-type: none"> Navigate to the homepage Select Register from navigation Access the registration page Enter valid user details Correct any invalid inputs Submit the registration form Receive confirmation message Access personalised features after login 	Having an account allows users to have personalised data that is unique to the individual. This will help them to access useful features such as managing their bookings. This functionality will be convenient and useful for the users preventing frustration and unnecessary phone calls to make changes to bookings.
Sign in	As Linda I want to sign in to my account so that I can access the admin area and manage bookings.	<ul style="list-style-type: none"> Navigate to the homepage Select Log In Enter valid staff credentials System validates credentials Log in successfully Be redirected to staff dashboard Access booking management features 	In order for staff to make administrative changes on the digital solution, a special sign in must be recognised by the solution. This will be an effective functionality that makes it easier for staff to make digital changes without interacting with technical back-end logic.
Sign in	As Ethan I want to sign in to my account so that I can access my	<ul style="list-style-type: none"> Access the login page Enter valid username Enter valid password Receive feedback for invalid details 	Signing in allows users to securely access personal data and saved features. That will be convenient for regular

	features and personalised saved data.	<ul style="list-style-type: none"> • Log in successfully • Be redirected to user dashboard • View personalised data 	users, implementing this essential functionality will make the digital solution more industry standard and not falling behind other competitors.
Sign in	As James I want to sign in to my personal account so that I can make a booking.	<ul style="list-style-type: none"> • Access the login page • Enter valid username • Enter valid password • Receive feedback for invalid details • Log in successfully • Be redirected to user dashboard • Access booking features 	Users feel safer when purchasing or making a transaction online when signed in, since data of the transaction will be saved online on the individuals account which they could always have access to.
Account Information	As James I want to view my account so that I can check my personal information.	<ul style="list-style-type: none"> • Log in to an existing account • Navigate to account settings • View current profile details • Confirm information accuracy • Exit account section securely 	An industry standard functionality that is also obligatory, is allowing users to have access to their personal data according to the Data Protection Act 2018 and the GDPR. Users should be allowed to view their account information for transparency so they can feel in control of their information.
Account Information	As Ethan I want to update my account so that my information stays accurate.	<ul style="list-style-type: none"> • Log in to an existing account • Navigate to account settings • Select edit profile option • Update personal details • Validate updated information • Save changes • Receive confirmation message 	Users need the ability to edit and update their personal information to stay up to date and accurate. Usually, users change phone numbers, and it is important for them to update their accounts phone number to reduce future miscommunication. This also reduces administrative work.
View rooms & facilities	As James I want to view available rooms and facilities so that I can choose a suitable room.	<ul style="list-style-type: none"> • Access the homepage • Navigate to Rooms section • View list of available rooms • View key room details • Select a room for more information • View individual room page 	The digital solution must enable users to view rooms and facilities so that the business can be deemed trustworthy but also to attract more customers. Clear room information helps users make informed booking decisions and reduces confusion and enquiries.
View booking policies	As Ethan I want to see booking policies so that I understand the rules before	<ul style="list-style-type: none"> • Access the website homepage • Navigate to Booking section • Select Booking Policies • View a list of all booking rules • Read cancellation and payment terms • Scroll through full policy content 	Having a page that lists all the booking policies is obligatory for the business in order to comply with the Consumer Contracts Regulation 2013. It reduces confusion, sets

	making a booking.	<ul style="list-style-type: none"> Understand conditions before booking 	expectations, and improves trust in the business as well.
View staff details	As James I want to view staff details so that I know who to contact for any enquiries.	<ul style="list-style-type: none"> Access the homepage Navigate to Contact Us Select Staff Details View list of staff members View staff roles and contact details Identify correct staff for enquiries Use provided contact information 	Users could make informed booking decisions after contacting staff directly. Business owners that need large facilities to hire, might need contacting CityPoint Room Hire directly to address their situation and reach an agreement that is suitable. This will reduce confusion and build trust and loyalty with their customers.
Book rooms for specific dates and times pending confirmation	As James I want to book a room for a specific date and time so that I can plan my meeting.	<ul style="list-style-type: none"> Log in to user account Navigate to Booking page Select a room Choose a date Choose start and end times Check room availability Submit booking request Receive pending confirmation message 	This feature allows customers to request bookings efficiently while giving staff control over approval. Users appreciate convenient features that makes it easier for them to plan and make informed decisions. Customers will be loyal to the business when having more flexibility with their services.
Accessibility Features	As a user with accessibility needs, I want the system to be easy to use so that I can access all features.	<ul style="list-style-type: none"> Access the website using assistive tools Navigate pages using keyboard controls View clear and readable text Use accessible colour contrast Access all core features Complete tasks without barriers 	By including accessibility features it will enhance the user experience as well as increasing the potential user base which the business benefits from. This demonstrates inclusivity and the support to a wider audience, which users appreciates and could lead to a better reputation.
Admin Booking Management	As Linda I want to confirm or deny booking requests so that room availability is controlled	<ul style="list-style-type: none"> Log in using admin credentials Access booking management area View pending booking requests Review booking details Confirm or deny bookings Update booking status Ensure room availability is accurate 	By implementing this functionality, it ensures accurate room scheduling and prevents double bookings. CityPoint Room Hire will be trusted by their customers when the booking process is smooth without any errors and problems.

Non-Functional Requirements

Performance		
Non-Functional Requirement	Justification	KPI
Latency	Users want consistent and fast service and do not want to have to wait for long periods of time, trying to do simple activities on the solution.	<ul style="list-style-type: none"> Under 100 ms End-to-End Response time should be under 500 ms
The solution should have an industry standard load time	This is industry standard and is vital to user experience, a slow system will lead to impatient users. Poor load time directly affects key business criteria; lower engagement, reduced session duration, fewer page views, and lost revenue.	<ul style="list-style-type: none"> Pages should load up 2.5 seconds First text or image should appear in 1.8 seconds
Fast booking processing	For a seamless user experience, customers expect fast booking processing otherwise it might frustrate users and reduces conversion.	<ul style="list-style-type: none"> Booking request processing under 3 seconds Booking confirmation success rate >= 99%
Efficient search performance	Users like to search and get relevant results quick in order for them to find what rooms that suits them best. An inefficient search performance will most likely upset the user making them turn to other competitors instead of using CityPoint Room Hire's service.	<ul style="list-style-type: none"> Search results display under 2 seconds Search error rate < 1%
Security		
Non-Functional Requirement	Justification	KPI
The solution must ensure unauthorised users can access personal data	The solution must protect customer information to ensure privacy and prevent misuse. If personal data is exposed, it could harm users, damage trust, and negatively affect the company's reputation.	<ul style="list-style-type: none"> Unauthorised access success rate: 0% Number of incidents where personal data was exposed to unauthorized parties: 0
Secure data storage	All stored customer and booking data must be	<ul style="list-style-type: none"> Data encryption compliance 100% Data leak incidents: 0

	securely protected to prevent breaches and data loss. Weak data storage security could lead to legal issues and a loss of customer confidence.	
Secure payment protection	If payments are processed, the solution must ensure that financial information is protected from fraud and theft. Poor payment security could result in financial loss and reduced customer trust.	<ul style="list-style-type: none"> • PCI compliance rate 100% • Payment failure due to security: < 1%
Role-Based access control	Different user roles such as staff and customers should only have access to relevant system features. Without proper access control, sensitive business data could be misused or altered.	<ul style="list-style-type: none"> • Unauthorised staff access rate: 0% • Permission errors < 1%

Scalability

Non-Functional Requirement	Justification	KPI
Increased booking volume support	The solution should handle a growing number of bookings as the business expands. If the system cannot scale properly, it may slow down or fail during busy periods, impacting customer experience.	<ul style="list-style-type: none"> • Support 1000+ bookings per month • Processing delay < 10%
Cloud scalability support	The solution should support cloud scaling to allow the system to grow without downtime or major system changes. This ensures the platform remains efficient as demand increases.	<ul style="list-style-type: none"> • Auto-scale activation success rate \geq 95% • Scaling downtime: 0
Support high concurrent user traffic	The system should support many users accessing and booking rooms at the same time. If too many users cause slowdowns, customers may abandon the platform and use competitors instead.	<ul style="list-style-type: none"> • Support 500+ concurrent users • Response time increase under 15% at peak load
Scale booking processing automatically	The solution should automatically scale booking processing during peak demand to maintain fast response times. Without	<ul style="list-style-type: none"> • Auto-scale activation success rate \geq 95% • Booking queue delay under 2 seconds

	automatic scaling, booking delays could frustrate users and reduce bookings.	
Capacity		
Non-Functional Requirement	Justification	KPI
Large booking storage capacity	The system should store a large number of bookings to maintain records for business and customer reference. Limited storage could lead to lost data or reduced system reliability.	<ul style="list-style-type: none"> • Store 50,000+ bookings • Database usage below 80%
User account storage capacity	The solution should support a growing number of registered customers without performance issues. If account capacity is limited, it could restrict business growth.	<ul style="list-style-type: none"> • Store 10,000+ users • No account retrieval delay
Room and Equipment record capacity	The system should support an expanding list of rooms and equipment as the business grows. Insufficient capacity could limit service expansion and operational flexibility.	<ul style="list-style-type: none"> • Store 1000+ inventory items • Data retrieval time < 2 seconds
System log and backup storage	The solution should store system logs and backups to support recovery and troubleshooting. Without proper storage, important data could be lost in case of system failure.	<ul style="list-style-type: none"> • Retain logs for 12 months • Backup success rate >= 99%
Reliability		
Non-Functional Requirement	Justification	KPI
High system uptime	The solution should be available most of the time to ensure customers and staff can access booking services when needed. Frequent downtime could cause frustration and lost revenue.	<ul style="list-style-type: none"> • Uptime >= 99.5% • Downtime under 4 hours a month
Error handling stability	The system should manage errors effectively to prevent crashes and service interruptions. Poor error handling could reduce	<ul style="list-style-type: none"> • Transaction error rate < 1% • Crash incidents < twice a year

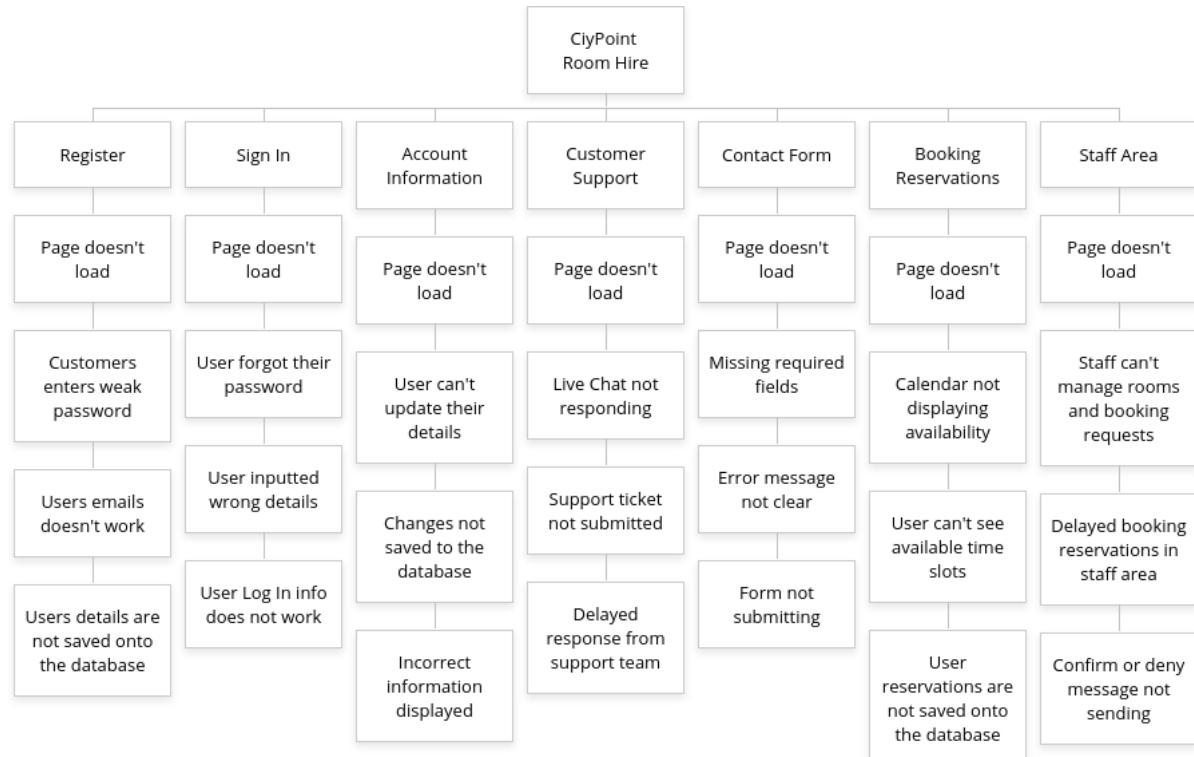
	reliability and user confidence.	
Data backup reliability	The solution should regularly back up data to prevent information loss in case of system failure. Without reliable backups, important business and customer data could be permanently lost.	<ul style="list-style-type: none"> • Daily backup completion 100% • Restore success rate >= 99%
Recovery time after failure	The system should restore operations quickly after technical failures to reduce service disruption. Long recovery times could impact business continuity and customer trust.	<ul style="list-style-type: none"> • Recovery time under 2 hours • Critical failure resolution under 24 hours

Usability

Non-Functional Requirement	Justification	KPI
Easy room booking process	The booking process should be simple and straightforward so customers can complete bookings without confusion. A complicated booking process may discourage users from completing their reservations.	<ul style="list-style-type: none"> • Booking completion rate >= 90% • Average booking time < 5 minutes
Simple navigation	The solution should be easy to navigate so users can quickly find room information and booking options. Poor navigation could frustrate users and reduce engagement.	<ul style="list-style-type: none"> • User navigation error rate <5% • Menu clarity rating >= 4/5
Staff friendly admin panel	The staff management system should be easy to use to allow employees to manage bookings efficiently. If the system is difficult to use, it could slow down operations and increase errors.	<ul style="list-style-type: none"> • Staff task completion success >= 95% • Admin training time < 2 hours
Clear booking management interface	Customers should be able to view and manage their bookings easily. If booking	<ul style="list-style-type: none"> • Booking edit success rate >= 95% • Support requests reduced by 30%

	management is unclear, users may require additional support or abandon the platform.	
Accessibility		
Non-Functional Requirement	Justification	KPI
WCAG 2.1 AA Compliance	The solution should follow accessibility standards to ensure it can be used by people with disabilities. Failure to meet these standards could exclude users and breach accessibility regulations.	<ul style="list-style-type: none"> • WCAG compliance 100% • Accessibility audit pass rate >= 95%
Screen reader compatibility	The system should support screen readers to assist visually impaired users in navigating the platform. Without this feature, some users may be unable to access important information.	<ul style="list-style-type: none"> • Screen reader support 100% • Accessibility error reports < twice a month
Keyboard-only navigation	The solution should allow full navigation using a keyboard to support users with limited motor abilities. If keyboard navigation is not supported, accessibility will be reduced.	<ul style="list-style-type: none"> • Keyboard navigability 100% • Navigation failure rate 0%
Adjustable text and colour contrast	Users should be able to adjust text size and colour contrast to improve readability. Without these features, users with visual impairments may struggle to use the platform effectively.	<ul style="list-style-type: none"> • Contrast compliance 100% • Readability user rating >= 4/5

Hierarchy Diagram



UI Consideration

To represent CityPoint Room Hire in a professional manner, the digital solution needs to be usable and visually appealing. Some key aspects I have to consider for the design phase are the colour scheme, spacing, fonts, images and illustrations. Firstly, the colour scheme I plan to use is clean, modern and comfortable for the users to interact with. The main colours I would like to go for consists of white, warm brown, and a dark charcoal colour. The white will be used to create a sense of cleanliness, openness and professionalism, making key elements easy to read and stand out.

The warm brown colour will be used to add warmth and approachability while also drawing attention to important interactive key elements. This colour will be used consistently for call-to action-buttons such as “Register”, “View all rooms”, “Contact us”, and “browse rooms”, ensuring they stand out clearly and guide users through the booking process. This is the hex code for the colour I chose #BE6A21, and I believe this burnt orange accent colour will give the website a luxury feeling grabbing the attention of users and increasing user engagement.

Also, the fonts I will be using on my visual design are mainly a serif font called “Georgia” and a sans-serif font called “Montserrat”. These fonts are already established fonts used by many popular websites and software’s, which ensures its readability and this means that the user will most likely already be familiar with the font. These fonts are modern, clean and professional that will match the theme of the website perfectly. I have chosen to use this font throughout all my pages to show consistency and ensure readability.

The images I will be using are professional images from trustworthy sources that are relevant to the theme of the website so that it creates a sense of consistency throughout the site and further convey the company’s target audience. The images will be legal to use on the solution not violating any laws which will make the website more trustworthy and ethical.

Security Considerations & Risk Mitigation

- Short introduction

Risk Matrix

Impact	High	R4	R3	R2	R1
	Significant			R6	R5
	Moderate				
	Low				
		Low	Moderate	Significant	High
Probability					

R1:

R2:

R3:

R4:

R5:

R6:

Mention CityPoint Room Hire in the Justification make it connected to the scenario

Risk	Mitigation Strategy	Justification
R1		
R2		
R3		
R4		
R5		
R6		

- What security risks will be involved in creating your web-based solution?
- How will you mitigate these potential risks?
- Make sure each one is specific to your particular solution and is not just generic

Legal and Regulatory Guidelines

The digital solution for CityPoint Room Hire will need to comply with a range of legal and regulatory guidelines, as it will function as an online platform providing room information, booking requests, customer accounts, booking management, and staff administration features. Complying with these regulations is essential to ensure the protection of customer data, fair trading practices, accessibility, and transparency when offering services online.

Data Protection Act 2018 and General Data Protection Regulation (GDPR):

CityPoint Room Hire will be required to comply with the Data Protection Act 2018 and the General Data Protection Regulation (GDPR) when collecting, storing, and processing customer personal data. This includes information such as names, email addresses, phone numbers, booking details, and account information. The digital solution must follow data protection principles including lawful and transparent processing, data minimisation, accuracy, and secure storage. Customers must be informed about how their data is used through a clear privacy policy and must be given the right to access, amend, or request deletion of their personal data where applicable. Appropriate security measures must be implemented to prevent unauthorised access or data breaches.

Consumer Contracts (Information, Cancellation and Additional Charges) Regulations 2013:

The digital solution must comply with the Consumer Contracts Regulations by clearly presenting information before customers submit booking requests. This includes room hire details, pricing, booking conditions, cancellation policies, and confirmation processes. Providing this information ensures customers understand their rights and obligations before entering into a contract, reducing disputes and misunderstandings.

Consumer Rights Act 2015:

CityPoint Room Hire must ensure that services provided through the digital solution meet the standards set out in the Consumer Rights Act 2015. All information relating to rooms, facilities, availability, and pricing must be accurate and delivered with reasonable care and skill. If the service does not match what is described, customers are entitled to appropriate remedies. This regulation protects customers and promotes fair service delivery.

Consumer Protection from Unfair Trading Regulations 2008:

The digital solution must comply with the Consumer Protection from Unfair Trading Regulations by ensuring that all content is honest, accurate, and not misleading. This includes descriptions of rooms, facilities, pricing, and availability. Providing clear and truthful information helps build customer trust and prevents deceptive practices.

Electronic Commerce (EC Directive) Regulations 2002:

As an online service provider, CityPoint Room Hire will be required to comply with the Electronic Commerce Regulations. The digital solution must clearly display business details such as company name, contact information, and terms and conditions. Customers must receive confirmation of booking requests submitted online, ensuring transparency and confidence in the digital process.

Equality Act 2010 and Accessibility Standards (WCAG):

The digital solution must comply with the Equality Act 2010 by ensuring that users with disabilities are not disadvantaged when accessing the platform. Accessibility standards such as the Web Content Accessibility Guidelines (WCAG) should be followed to support inclusive design. This includes readable text, sufficient colour contrast, keyboard navigation, and compatibility with assistive technologies. Meeting these standards ensures equal access and legal compliance.

Intellectual Property Law:

CityPoint Room Hire must ensure that all digital content, including text, images, logos, and branding, is either owned by the business or used with proper permission. Compliance with intellectual property law prevents copyright infringement and protects the company's professional identity.