LO1 Discuss the stages of a design process and the types of information required to communicate, share and manage the project process in architecture project P1 Describe the stages and activities of a construction design process The construction design process in architecture is a systematic sequence of stages aimed at transforming an initial idea into a fully realized building.o Information Sharing Requirements: o Technical Integration: Close coordination between architects, engineers, and consultants is essential to integrate structural, mechanical, electrical, and plumbing systems into the design.o Information Sharing Requirements: o Detailed Drawings and Specifications: These documents, which include plans, elevations, sections, and technical specifications, need to be shared with the contractors, subcontractors, and other stakeholders to ensure everyone has the same understanding of the design intent.o Structural and MEP (Mechanical, Electrical, Plumbing) Information: Collaboration with engineers to incorporate structural, mechanical, electrical, and plumbing systems into the design, ensuring they align with the architectural vision.o Feasibility Studies: Conduct further studies, such as structural analysis or energy efficiency assessments, to ensure the design is practical and meets the project's objectives.Key Activities: o Construction Drawings: Create detailed construction drawings that include all architectural, structural, and MEP (mechanical, electrical, plumbing) elements.o Feasibility Studies: Any further analysis or assessments required to ensure the design is viable and meets technical, functional, and regulatory standards.o Contractor and Subcontractor Coordination: Information to facilitate communication and coordination between contractors, subcontractors, and consultants, addressing any questions or problems that arise during construction.The information required at each stage must flow seamlessly between stakeholders, such as architects, engineers, contractors, and clients, to ensure that the project remains on track, meets objectives, and adheres to time and budget constraints.Each stage involves specific activities that help refine the design and ensure that the project meets the client's needs, adheres to regulations, and is feasible within the given constraints.o Building Codes and Regulatory Requirements: Detailed review of relevant codes, regulations, and local ordinances to ensure the design complies with legal and safety requirements.o Regulatory Requirements: Information on zoning laws, building codes, and planning restrictions must be reviewed and shared between the design team to ensure compliance with local regulations.During design development, the initial sketches and layouts are further refined into comprehensive, technical drawings, and the design becomes more detailed in terms of structure, materials, and systems.Key Activities: o Detailed Drawings: Develop more detailed architectural drawings, including floor plans, sections, and elevations that define the design more precisely.o Coordination with Engineers: Work closely with structural, mechanical, electrical, and plumbing engineers to integrate their systems into the design.P2 Explain the types of information required throughout the different stages of a project process In an architectural project, different stages of the design process require specific types of information to ensure the project progresses smoothly and meets its objectives.o Site Analysis: Information about the site's topography, soil conditions, zoning laws, climate, environmental constraints, and opportunities.Schematic Design Stage Types of Information Required: o Preliminary Layouts: Basic floor plans, site plans, and building elevations to explore spatial arrangements and the overall design intent.o Energy Performance Data: Information on energy efficiency, including passive design strategies,

insulation values, HVAC systems, and renewable energy options to meet sustainability goals.o Technical Specifications: A comprehensive set of specifications that outline the materials, finishes, construction techniques, and performance standards required for each element of the building.o Bidding Documents: A package of information, including drawings, specifications, and scope of work, used to invite contractors to submit bids for the project.The early ideas from the concept design stage, such as client requirements and site constraints, are expanded upon in the schematic design, where they are transformed into preliminary layouts and spatial arrangements.This requires the sharing of detailed technical data, such as structural calculations, material specifications, and MEP systems integration.o Budget and Feasibility Updates: The project budget and cost estimates should be revisited and shared to ensure the project remains financially viable as the design develops.At this stage, all aspects of the design are finalized, and the focus shifts to producing detailed drawings and specifications that contractors will use to build the project.o Site Analysis: Study the site conditions, including topography, zoning regulations, climate, and any other constraints or opportunities the site may present.Key Activities: o Preliminary Layouts: Create initial floor plans, site plans, and building elevations to explore different spatial arrangements.o Client Feedback: Engage the client in reviewing and refining the design options, ensuring their needs and preferences are addressed.o Technical Specifications: Prepare a comprehensive set of specifications that outline the materials, finishes, and construction techniques to be used.o Managing Changes: Address any changes or modifications that occur during construction, ensuring that these are documented and communicated to all stakeholders.Concept Design Stage Types of Information Required: o Client Requirements: Detailed understanding of the client's vision, goals, and preferences for the project, including the intended use of the space, aesthetic desires, and any specific functional needs.o Initial Budget Estimates: A rough estimate of the project's costs, including construction and design fees, to ensure the project is financially feasible.Design Development Stage Types of Information Required: o Detailed Drawings: More refined architectural drawings, including floor plans, sections, elevations, and details that represent the design in greater specificity.Construction Documentation Stage Types of Information Required: o Construction Drawings: Detailed, accurate, and scaled drawings (plans, sections, elevations) that will guide the construction team in building the project.o Change Orders: Documentation for any changes or modifications to the original design or scope of work, including revised drawings, specifications, and associated costs.o Completion and Handover Documentation: Final reports, as-built drawings, warranties, and maintenance manuals required for the successful handover of the project to the client.This stage involves the management of the construction process, with an emphasis on monitoring quality, adhering to timelines, and ensuring compliance with the design.o Handover Documentation: Information regarding warranties, operation manuals, and maintenance instructions is shared with the client to ensure proper maintenance of the building after completion.Schematic Design Objective: To develop the initial concept into more detailed plans and layouts.o Preliminary Building Code Review: Begin reviewing local building codes and regulations to ensure that the design is compliant.Construction Documentation Objective: To produce precise technical drawings and specifications to guide construction.o Permits and Approvals: Submit the necessary documentation for regulatory approval and obtain permits required for construction.o

Coordination with Contractors: Work with contractors to address any questions or issues that arise during construction, ensuring the design is implemented correctly.o Final Inspections and Handover: Conduct final inspections to ensure that the building is completed according to the design specifications, and prepare for handover to the client.o Contractual Documents: Legal agreements and contracts, including terms of the project, payment schedules, and the scope of work.o Permit Applications: Documentation required to obtain the necessary building permits and approvals from local authorities.Construction Administration Stage Types of Information Required: o Site Inspection Reports: Regular reports documenting site visits, the quality of work, and adherence to design specifications.o Budget Tracking: Updated financial information to track expenditures, ensuring the project stays within budget and any cost overruns are addressed promptly.o Site Analysis: Updated site information is shared between architects and engineers to ensure that the design options align with the site conditions.o Client Review: The refined design needs to be shared with the client for feedback, ensuring that the design aligns with their expectations and objectives.o Information Sharing Requirements: o Site Inspections and Reports: Information gathered from regular site inspections needs to be shared with the design team to address any issues, resolve discrepancies, and make adjustments to the design if necessary.o Change Orders: If changes to the design are required, updated drawings and specifications must be shared with contractors and subcontractors to reflect these changes.Construction Administration to Project Completion o Relationship: During construction administration, the project is monitored and managed to ensure it meets design specifications.o Information Sharing Requirements: o As-Built Drawings: Final as-built drawings, which reflect any changes made during construction, must be shared with the client, contractors, and maintenance teams.o Completion Reports: Final inspection reports and project documentation must be shared to confirm that all aspects of the project have been completed according to specifications.o Initial Sketches: Develop initial sketches and conceptual ideas that represent the overall vision for the project.o Budget Estimates: Provide preliminary cost estimates to ensure the project is financially viable.o Material Selection: Choose materials for the building that meet the design's aesthetic, functional, and budgetary requirements.o Bidding and Tendering: Issue the final drawings and specifications to contractors for bidding and selection.Key Activities: o Site Inspections: Conduct regular site visits to monitor the construction progress and ensure quality control.o Building Codes and Regulations: Basic understanding of relevant local building codes, zoning laws, and planning permissions that will influence the design and construction.o Client Feedback: Feedback from the client on the proposed layouts and design options, which helps refine the design and make adjustments based on their preferences.o Material Research: Initial research on materials that may be used in the project, considering their aesthetic qualities, durability, and cost.o Material Specifications: Specific information about the materials to be used in construction, including types, finishes, quantities, and suppliers.o Information Sharing Requirements: o Client Feedback: It is essential to communicate and share feedback from the client to refine the design direction.o Permits and Approvals: Construction documentation must be reviewed and shared with local authorities to obtain the necessary permits and approvals.These include all architectural, structural, and MEP components.2.3.4.5.2.3.4.5.2.3.4.5.