Final Year Project Showcase Batch-2020
For the Year 2025

Department of Architecture and Planning Name of Programme: Architecture		
1	**Project Idea**	A low-cost, courtyard-based housing cluster for Korangi's textile workers that integrates home-based workshops, shared open spaces, and a decentralized water treatment system for improved living and working conditions, the project is called Woven Habitat
2	**Process**	The housing development starts with residential units surrounding intimate family courtyards where residents perform daily tasks such as cooking and washing and use them for relaxation and socializing. The narrow pathways between courtyards unite with shaded walkways to create natural ventilation and facilitate social connections between neighbors. The pathways connect to a central workshop courtyard which functions as a joint textile production facility where residents can work at home while joining forces with their neighbors for income generation. The area outside the workshop courtyard transforms into a playground designed for children which uses trees and benches to create a secure and shaded space for play activities. The back area of the residences features narrow walkways which lead to a women's exclusive courtyard where residents can perform domestic activities such as washing and gardening along with informal social interactions that respect cultural boundaries. The design of every courtyard preserves sight lines and spatial links to guarantee fresh air circulation and natural observation while maintaining a close-knit community which serves social and environmental requirements
3	**Outcome**	The housing development establishes an affordable resilient living space for Korangi textile workers through multiple courtyard systems which fulfill different social and functional purposes. The home-based textile production and economic activity find a central hub within the workshop courtyard which connects to children's play courtyards that allow safe communal recreation. The private rear courtyards function as exclusive spaces for women to nurture domestic life along with comfort and privacy through a culturally appropriate design. The layered courtyard system improves airflow and natural light exposure and social interaction thus creating a self-sustaining inclusive community that aligns with local lifestyle and climate needs**.**
4	**Evidence (Theoretical Basis)**	The architectural design integrates vernacular concepts with Christopher Alexander's "Pattern Language" to establish courtyards which function as essential patterns supporting social ties and environmental management and community events in congested low-income housing. The design draws from Hassan Fathy's traditional Egyptian housing research to use courtyards as thermal comfort enhancers through natural ventilation and evaporative cooling methods which decrease mechanical system requirements in hot-arid climates including Karachi. Feminist spatial theory supports the creation of gender-sensitive spaces through the use of private courtyards which shield cultural privacy standards and enable informal public participation for secluded women.The implementation of live-work courtyards follows John Turner's self-help housing principles

		through user space control and flexible use and community resilience development in informal urban areas lacking adequate formal planning
z5	**Competitive Advantage or Unique Selling Proposition** The housing concept that centers around courtyards presents an effective answer to Korangi textile workers' financial problems because it solves both monetary and social issues through intelligent space design. The project achieves substantial cost reduction in building expenses and maintenance through local material usage and communal construction involvement which allows residents to enhance their houses based on their economic situation. By sharing courtyards between residents the need for separate infrastructure systems becomes minimal which results in reduced overall utility requirements. The design achieves multiple Sustainable Development Goals through its implementation of inclusive affordable housing which addresses SDG 11 and its integrated water reuse and greywater treatment systems which addresses SDG 6 and its live-work textile production spaces which addresses SDG 8 and its women-only courtyard spaces which addresses SDG 5 by promoting gender equality and social participation. The project surpasses traditional low-cost housing solutions because it integrates climate-responsive design with gender-sensitive planning and economic productivity within one unified system which serves as a desirable investment for housing authorities and NGOs and private developers seeking sustainable high-impact solutions. having superior performance over a competitor. In summary, any striking aspect of the project that compels the industry to invest in FYP or purchase it. Some detailed description is required in terms of how, why when what. e	
a	**Cost reduction of existing Product**	The design achieves lower expenses through the use of regional building supplies and communal spaces such as workshops and courtyards which decrease personal financial obligations. Home improvement through gradual stages enables cost distribution across time while daylight and natural ventilation help decrease energy expenses.
b	**Process Improvement which leads to superior product or cost reduction, efficiency improvement of the whole process** (e.g. What is the issue is current process and what improvement you suggests)	Housing developments built using existing methods create separate spaces between residential areas and workplaces which produces inefficient land utilization while increasing both utility and transportation expenses. This design integrates workshops inside residential clusters which enhances efficiency through decreased travel time while maximizing spatial utilization. The combination of shared courtyards and water treatment facilities simplifies infrastructure maintenance while decreasing utility expenses. Through a step-by-step community-led construction process residents gain control over expenses and space modifications which produces housing solutions that are both economical and sustainable
c	**Attainment of any SDG** (e.g. How it is achieved and why it is necessary for the region)	The housing design achieves important Sustainable Development Goals which are essential for Korangi's development process. The housing project advances SDG 11 (Sustainable Cities and Communities) because it delivers affordable protective housing for textile workers with low income. The water treatment facilities built into the system push forward SDG 6 (Clean Water and Sanitation) through providing access to clean water and sanitary conditions in areas with limited water supply. SDG 8 (Decent Work and Economic Growth) receives support through the establishment of workshops which enable residents to work from home. The women-only courtyards help achieve SDG 5 (Gender Equality) by creating safe locations for women to conduct social and economic activities. Korangi's sustainable growth requires these goals to be achieved because they meet critical needs for housing and health and economic stability.
d	**Expanding of Market share** (e.g. how it expand and what is the problem with the current market	The existing low-cost housing in Korangi fails to incorporate workspace and community elements which restricts its appeal. The design expands its market by uniting affordable housing units with

		workshop areas and communal spaces to address residential and occupational needs. The project draws an increased number of residents together with investors who seek sustainable and culturally respectful housing solutions thus generating fresh market demand.
e	**Capture new market (**e.g. Niche market or unaddressed segment**)**	This project focuses on the underrepresented group of textile workers with limited income who need housing that allows them to work and live in the same space. The project delivers residential units with integrated workshops and women-only courtyards to fill cultural and economic gaps that standard housing designs neglect while targeting live-work community-centered solutions for a new market segment.
f	**Any Environmental Aspect** (e.g. carbon reduction, energy-efficient, etc.)	The architectural layout enhances environmental sustainability through courtyard layouts which enhance natural airflow and daylight penetration thus minimizing the requirement for synthetic cooling and lighting solutions. The system incorporates standalone water processing units with greywater recycling functions to minimize both water waste and pollution. The use of local materials with reduced carbon footprint along with common infrastructure results in lower carbon emissions which produces environmentally friendly and energy-conserving housing units.
6	**Target Market** (Industries, Groups, Individuals, Families, Students, etc) Please provide some detail about the end-user of the product, process, or service	The housing project primarily serves low-income textile workers along with their family members who reside in densely populated urban areas of Korangi, Karachi. The people who work at home or in nearby informal workshops experience substandard housing conditions and limited sanitation access and overcrowded living environments. The design features culturally suitable private outdoor spaces which enable women from these households to conduct social and domestic activities. The children gain protection through safe play areas which remain visible from their homes and the workshops on-site enable residents to generate income. The secondary users of this project will likely include small-scale artisans alongside migrant workers and NGOs and housing developers who specialize in community-based affordable urban solutions.
7	**Team Members (Names & Roll No.)**	**Suhaira Baig (AR-20002)**
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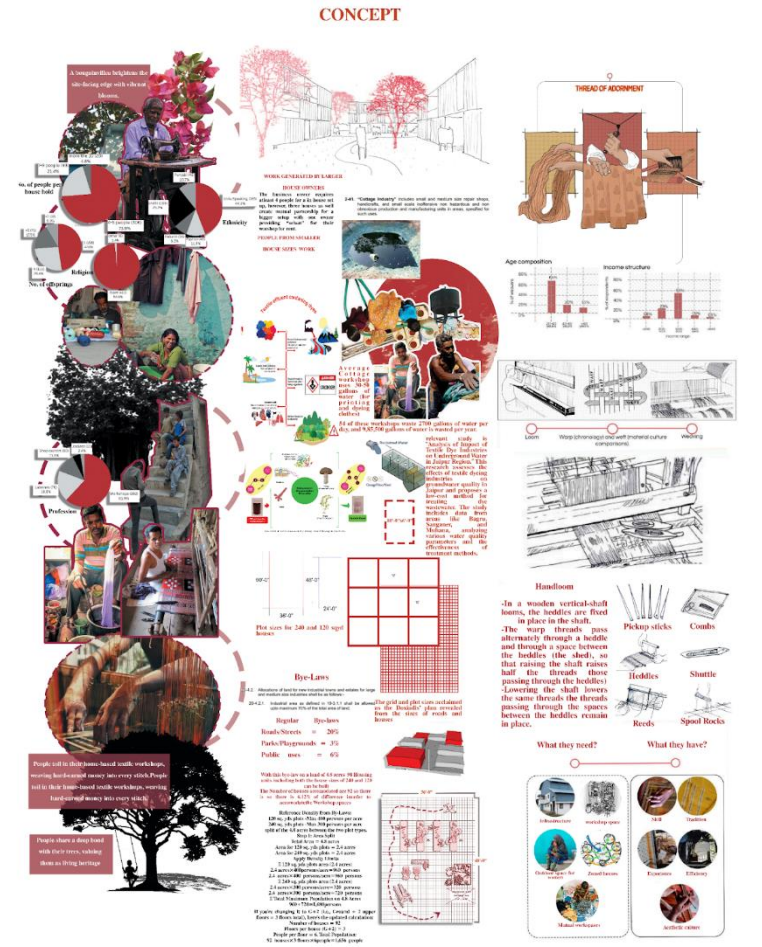
10	**Pictures (If any)**	 PLAN



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