**\*PRODUCT DESIGN THINKING**

**\*QUANTUM UNIVERSITY**

**\*ASS NO.2 (TASK 3)**

**\*Create a storyboard for a product**

# **TASK 03**

## STORYBOARD FOR ELECTRIC BICYCLE

## (E-BIKE)

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| STAGE | DESIGN ACTIVITIES | PURPOSE | GOAL | VISUALIZATION STYLE |
| ANALYSIS | MARKET RESEARCH  COMPETITOR STUDY | IDENTIFY URBAN COMMUTING NEEDS | DEVELOP A SUSTAINABLE TRANSPORT SOLUTION | USER BEHAVIOR CHARTS, DEMAND GRAPHS |
| SYNTHESIS | MOTOR, BATTERY AND FRAME DESIGN | OPTIMIZE EFFCIENCY, WEIGHT AND DURABILITY | ENSURE SMOOTH RIDE WITH LONG BATTERY LIFE | CAD SKETCHES, COMPONENT DIAGRAMS |
| SIMULATION | VIRTUAL RIDE TESTING, POWER CONSUMPTION TESTS | ASSESS ENERGY EFFICIENCY AND SPEED VARIATIONS | FINE-TUNE MOTOR SYSTEM | 3-D MODELS PERFORMANCE SIMULATIONS |
| EVALUATION | REAL-WORLD RIDING TESTS, FEEDBACK COLLECTION | IDENTIFY AREAS FOR IMPROVEMENT IN COMFORT AND CONTROL | OPTIMIZE FOR USER SAFETY AND USABILITY | TEST REPORTS, CRASH TEST VISUALS |
| DECISION | FINAL REFINEMENTS AND PRODUCTION | LAUNCH AN ERGONOMIC AND EFFICIENT E-BIKE | PROVIDE A SUSTAINABLE AND COMFORTABL RIDE | MARKETING VISUALS, PRODUCT LAUNCH VIDEOS |