



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

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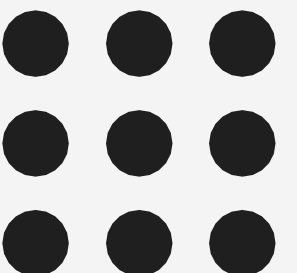
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

COURSE NAME: 19OE116 - PRODUCT DESIGN AND DEVELOPMENT

III YEAR / VI SEMESTER

Unit 1 - INTRODUCTION

Topic 1 – Need for Developing Products



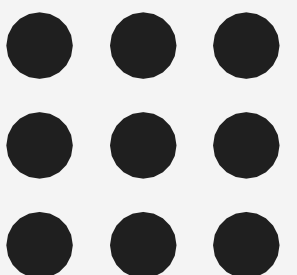
Product:

- ★ Set of attributes offered to customers to fulfill their needs
- ★ Vehicle providing required benefits to its users
- ★ Sold by an enterprise to its customers

Types:

Tangible: Ex. Goods

Intangible: Ex. Services

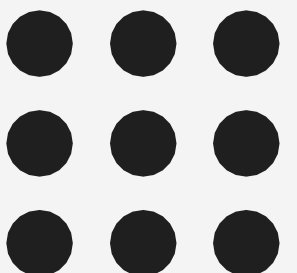


Product Design:

Creating physical products that are both functional and aesthetically pleasing

It includes the form, function, and user experience (UX) of the product

Applications: Consumer electronics, furniture, appliances, and packaging

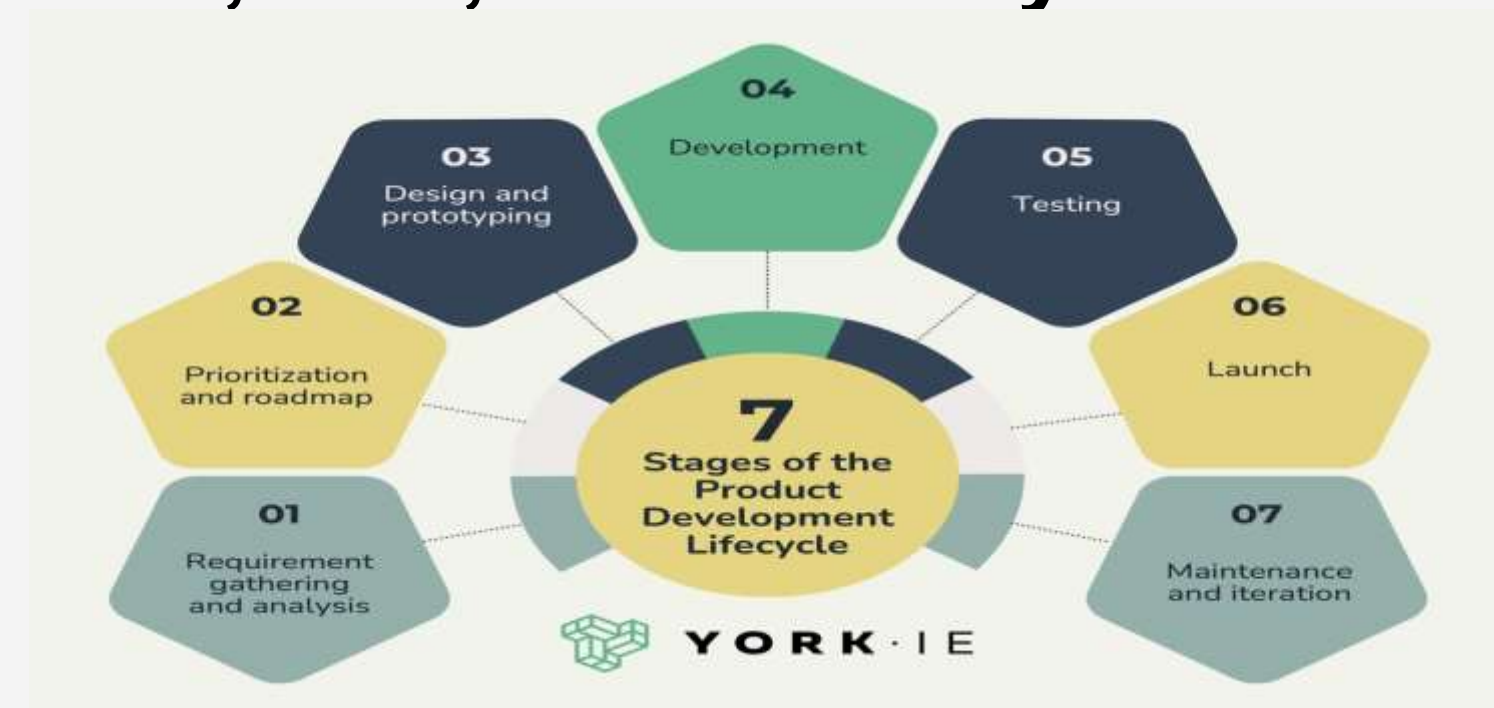


Product Development:

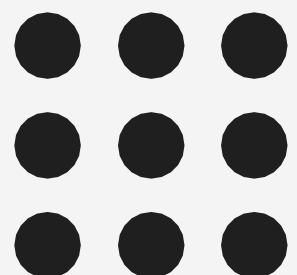
Set of activities beginning with the perception of a market opportunity and ending in the production, sale, and delivery of a product

Customer Products

Industrial Products



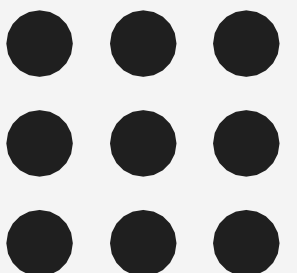
Product development is not just about creating new items for the market; it's about addressing needs, driving innovation, solving complex problems, and contributing to societal progress.





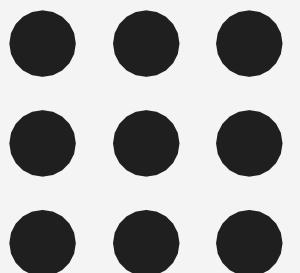
Need for Developing Products:

- ❖ **Meeting Consumer Needs**
- ❖ **Innovation and Competition**
- ❖ **Economic Growth and Job Creation**
- ❖ **Solving Problems and Addressing Challenges**
- ❖ **Technological Advancements**





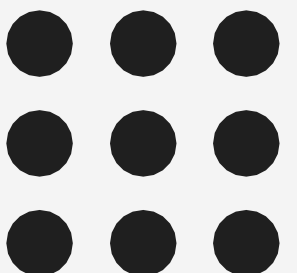
- ❖ **Sustainability and Environmental Impact**
- ❖ **Enhancing Quality of Life**
- ❖ **Brand Loyalty and Consumer Trust**
- ❖ **Economic Efficiency and Cost Reduction**





Characteristics of Successful Product Development:

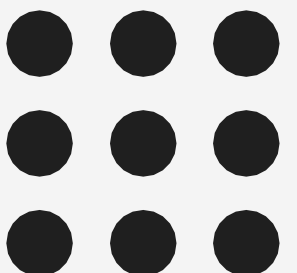
- ❖ **Product Quality**
- ❖ **Product Cost**
- ❖ **Development Time**
- ❖ **Development Cost**
- ❖ **Development Capability**





The Challenges of Product Development:

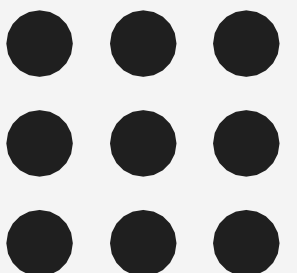
- ❖ Trade-Offs
- ❖ Dynamics
- ❖ Details
- ❖ Time Pressure
- ❖ Economics





Organizational Realities:

- ❖ **Lack of empowerment of the team**
- ❖ **Functional allegiances transcending project goals**
- ❖ **Inadequate resources**
- ❖ **Lack of cross-functional representation on the project team**





Thank You...