



# Design Thinking

**An Approach To  
Creative Problem Solving**

**Presented By  
Dr. Ankur Garg**



# Syllabus for Autonomous Course B.Tech., **Semester-1**

Theory Course Code	Theory Course Name	L	T	P	C
<b>K24CSIT11</b>	<b>Design Thinking</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>

# Step 4: Prototype





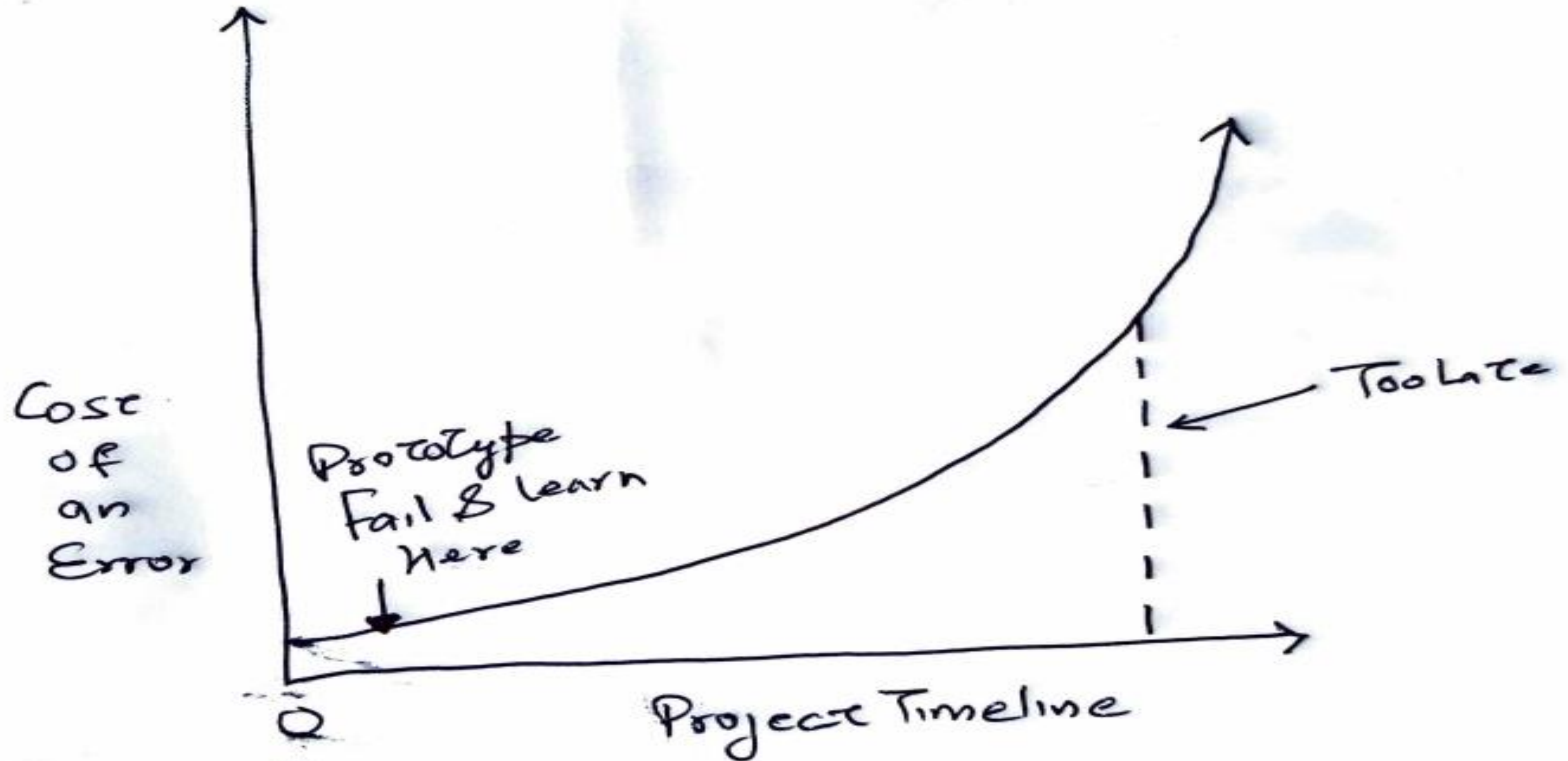


**Turn your concept into something concrete, tangible – something you can test.**

**Why????**

**To gain empathy; to explore; to test; to inspire. To test your hypotheses, to get you closer to your final solution.**

**Prototyping**  
**Fail early, fail often!!!**





**IT'S TIME FOR  
THE FUN STUFF!!!**



**1. Build a tool using the materials provided.**

**2. Test it with people in your group.**



# Step 5: Test







Test your concept with users using your prototypes.

**Why?**

To understand how users understand and use the concept. It is a way of continuing to gain empathy for your users and evaluate your solution.

# Test what you built!

One person from a different group  
must now **test picking up the pin**  
**with the oven glove and pin the**  
**pin to the board.**

## Pin!!!!



# Capture Questions

Get the person testing your tool to  
ask questions about it.

# Capture ideas

Write people's feedback down on post-its so you can improve your product.



# Feedback Session (5 mins)

In your group, discuss and answer these 3 questions:

1. What worked well?
2. What didn't work well?
3. What could be improved upon?

**In real life, Design Thinking is  
not a linear process.**

**You're constantly iterating,  
changing things, until you're  
happy with what you've created.**



# Key Highlights

**Write down all your key highlights, key learnings or key moments from today's session.**



**Each person should present one key highlight to the whole group!**

**That's it for today**  
**Dear Colleagues**

**Thank you so much**  
**Happy Learning!!!**





# Persona

## Background

*Family background, education, childhood,*

## Motivation

*What motivates the individual*

## Doubts / Fears

*What are the doubts / fears faced by the individual*

## Challenges faced

*Challenges faced by the person in dealing with his stakeholders*

## Aspirations

*What this individual aspires to be / his vision*

*Construct a story while explaining the persona to your peers and document the insights ....*





चमकते रहना



## Background

- *Belongs to a middle class family*
- *Graduate in an arts college*
- *More than one sibling*
- *Could be a working woman or a home-maker or a recently graduated student*

## Challenges faced

- *Needs a detergent within the budget that takes care of the clothes*
- *Spending too much money on detergents and other natural resources like water.*
- *Unable to portray her integrity and uprightness*

## Motivation

- *Excellence in whatever she does*
- *Good feedback about her activities (either peers or neighbours or family)*

## Doubts / Fears

- *She doubts that colleagues envy her & doesn't want to hand them any issue.*
- *E.g: A spot of dirt on cloth/uniform should not become a major embarrassment for her*

## Aspirations

- *She wants to stand different from the crowd either in the neighborhood or at her workplaces*
- *Wants to make her parents and siblings proud*

*The Target User wants herself to be unique among her peer group & cherishes excellence in her field.*





Surf  
excel  
matic



## Background

- Financial background is Upper middle class & elite economy class of the society
- A post-graduate in a reputed institute
- Has travelled abroad for holidays
- Residing in upmarket locations , gated community locations of city
- Has kid(s)

## Challenges faced

- Though she would love her kids to play in open, she would definitely not scold them for soiled clothes. She would keep on encouraging them . She has clothes for her kids in abundance & necessary best-in-class washing machine available.

## Motivation

- Liberty for kids & Freedom to try new things which are beneficial for kids' learning motivates her.

## Doubts / Fears

- She feels that nowadays kids don't get involved in physical games & activities. She fears they may never get exposed to benefits of outdoor games, develop sportsmanship etc.

## Aspirations

- She aspires to be a caretaking mother & wants to give freedom to her kids to enjoy the nature, play outdoor games, develop more friends etc .

*The Target User cherishes freedom for her kids & wants to look supportive in helping her kids to get their hands dirty in exploring variety of things.*