Knowledge Session : Project Design Phase-1

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Professional Readiness for **Innovation, Employability & Entrepreneurship**

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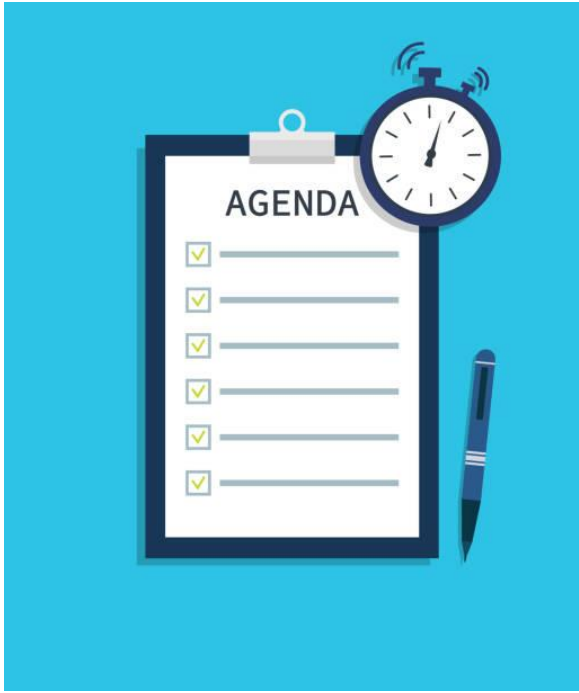
Agenda

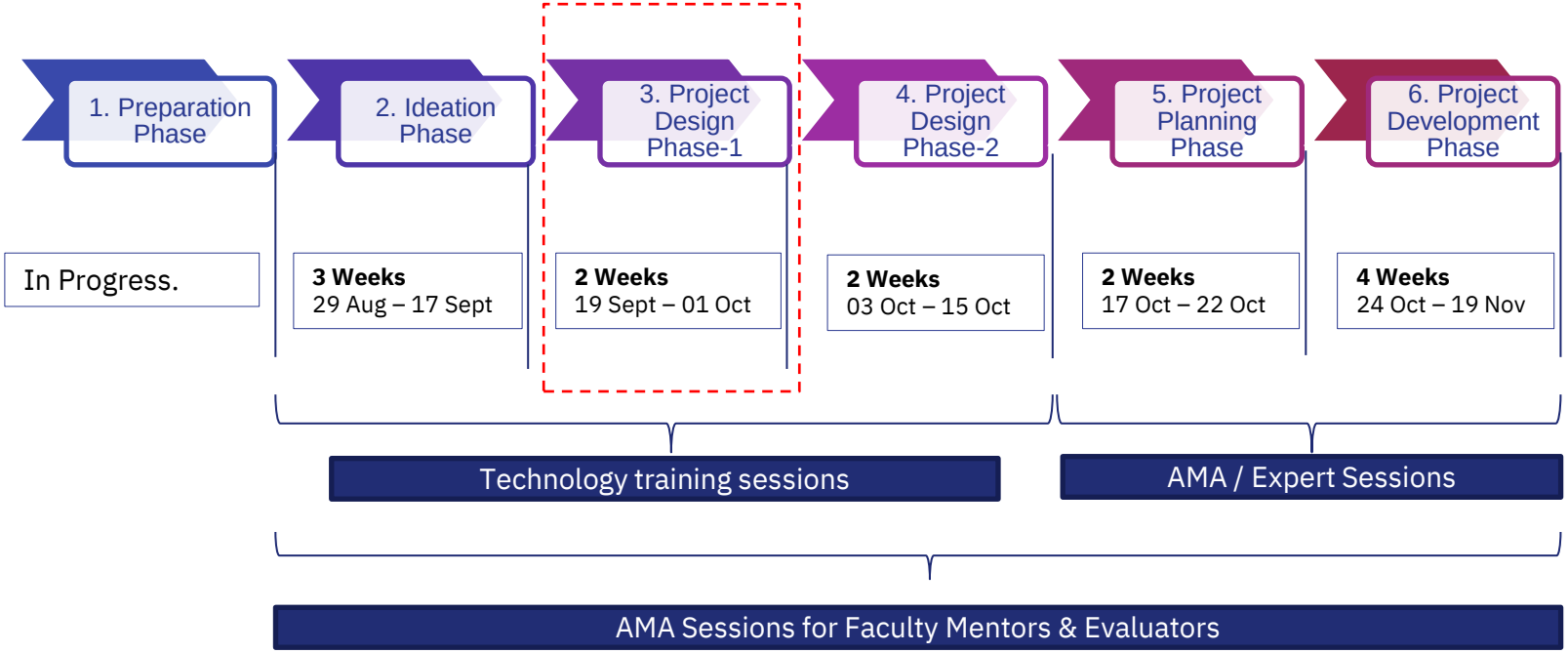
- Project Development Process
- Project Design Phase-1
- Problem – Solution Fit
- Proposed Solution
- Solution Architecture
- Responsibility of Faculty Mentor
- Q&A



Project Development Process & Timelines

Project Development Process & Timelines

Project development process, timelines and associated training & mentoring sessions are listed below.



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Project Design Phase -1

The project teams shall complete the below activies as part of the project design phase-1. There are three templates / deiverables to be submitted during this phase.

3	**Project Design Phase -I** (Proposed Solution, Problem-Solution Fit, Solution Architecture)	Week-5	19 - 24 Sept 2022	3.1	Prepare the proposed solution document, which includes the novelty, feasibility of idea, business model, social impact, scalability of solution, etc.
				3.2	Attend the technology trainings as per the training calendar
		Week-6	26 Sept - 01 Oct 2022	3.3	Prepare problem - solution fit document & Solution Architecture
				3.4	Attend the technology trainings as per the training calendar

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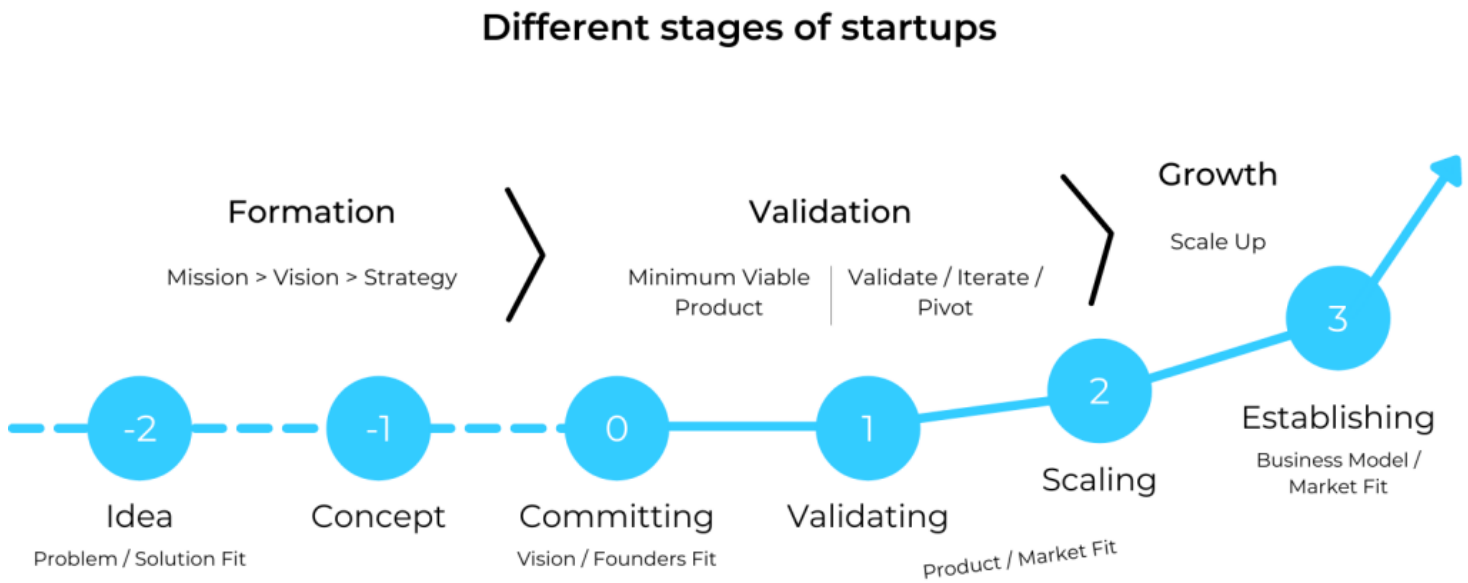
Problem – Solution Fit

Different Stages of Start-ups

The Customer Development Process contains 3 kinds of Fits:
1. Problem-Solution Fit | 2. Product-Market Fit | 3. Business Model-Market Fit



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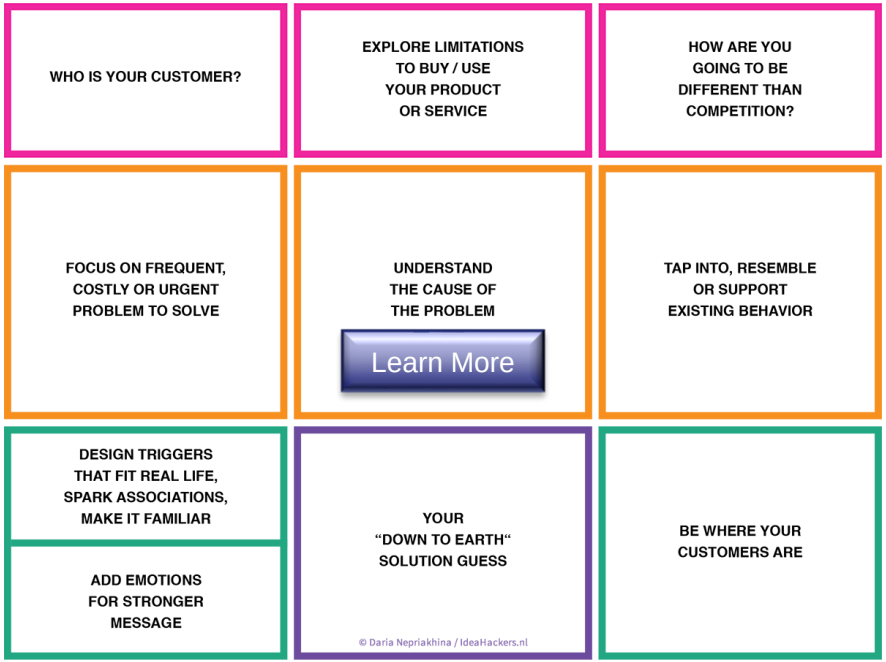
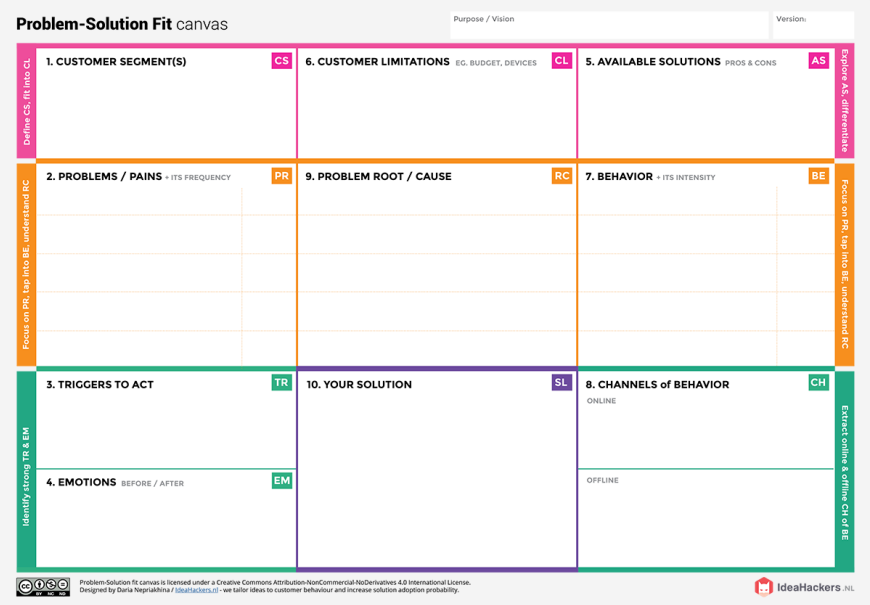
What is Problem – Solution Fit ?

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why



- Solve complex problems in a way that fits the state of your customers.
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- **Understand the existing situation in order to improve it for your target group.**

Problem – Solution Fit Canvas



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1. **Customer State fit:** to make sure you understand your target group, their limitations and their currently available solutions, against which you are going to compete.
2. **Problem-Behavior fit:** to help you filter out the noise and identify the most urgent and frequent problems, understand the real reasons behind them and see which behavior supports it. Is this behavior weak or infrequent — is it a problem worth solving?
3. **Communication-Channel fit:** to help you sharpen your communication with strong triggers, emotional messaging and reaching customers via the right channels.
4. **Solution guess**: translate all the validated data you have gathered into a solution that fits the customer state and his/her limitations, solves a real problem and taps into the common behavior of your target group.

Proposed Solution

Proposed Solution

After doing a thorough investigation into the problem, you would have a solid grasp of *how* the problem occurred. Thus, you need to propose a practical solution or suggest several approaches to understanding and rectifying the issue.

1. Problem Statement (Problem to be solved)
2. Idea / Solution description
3. Novelty / Uniqueness
4. Social Impact / Customer Satisfaction
5. Business Model (Financial Benefit)
6. Scalability of Solution

Solution Architecture

Solution Architecture

Solution architecture is a practice to provide ground for software development projects by tailoring IT solutions to specific business needs and defining their functional requirements and stages of implementation.

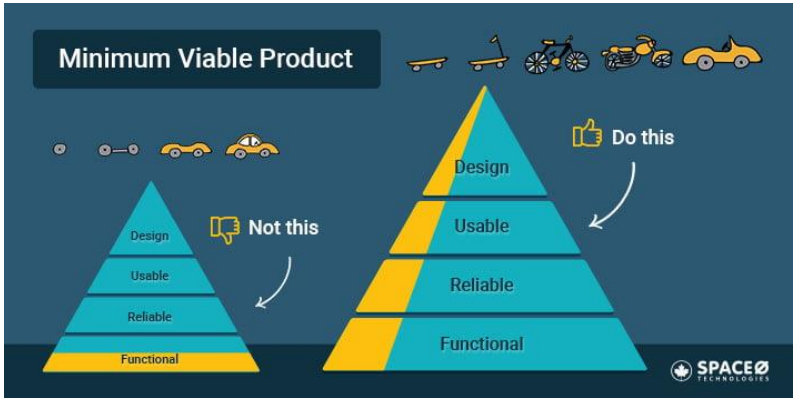
Using a Minimum Viable Architecture strategy is an effective way to bring a software product to market faster with lower cost. But what exactly do we mean by “Minimum Viable Architecture”? In simple terms, creating a minimum viable architecture involves the following steps:

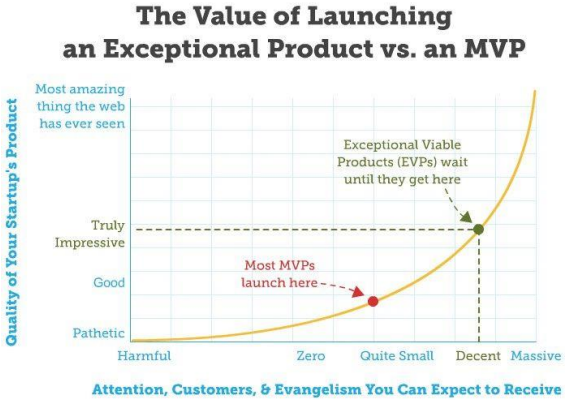
- Initially designing just enough architecture to exactly meet the known quality attribute requirements of a software system, in order to quickly create a system viable enough to be used in production;
- Then the MVA can be continuously augmented to meet additional requirements or requirement changes as they are defined over time. Keeping the architectural design flexible is essential and leveraging Principle(“Architect for change – leverage the “power of small”) is an excellent way to accomplish this objective.

Minimum Viable Architecture / Product

The most important aspects of this type of architecture are

- Architecture not built for the least-likely worst-case scenario. Instead the product will be built by keeping in mind the most likely scenario.
- Built in small increments over a period of time. For this to work out smoothly, the programming language and the major technologies must have been already evaluated and decided. Minimum viable architecture does not mean that we change the programming language or major technologies midway in the development life-cycle.
- Based on concrete or at-least reasonable requirements, not built on pure assumptions.





Responsibility of Faculty Mentors

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- ❑ Understand the Project Design Templates
- ❑ Deliver internal sessions on templates, concepts of minimum viable architecture & product design
- ❑ Ensure the submission of templates on time.
- ❑ Ensure the attendance of students in technical trainings

Q&A

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