Project Design Phase-I
Problem – Solution Fit Template

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) `CS`
Who is your customer?
i.e. working parents of 0-5 y.o. kids

> Customer who wants to detect whether they are affected by Parkinson's or not.

6. CUSTOMER CONSTRAINTS `CC`
What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

> ➤ Network connection
> ➤ Mobile phone or pc
> ➤ Proper Power Supply

5. AVAILABLE SOLUTIONS `AS`
Which solutions are available to the customers when they face the problem
or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

> *Parkinson's disease can't be cured but early detection of disease makes the people to take proper diagnosis on time to improve the quality of life.
> *Predictions can be done using sensors, but it is quite costly.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS `J&P`
Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

> *Eliminate confirmation bias that leads to unnecessary panicking.
>
> *Spread awareness about the disease.
>
> *Get the reviews from the customers to improve the application.

9. PROBLEM ROOT CAUSE `RC`
What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

> *Parkinson's disease is caused by a loss of nerve cells in part of the brain called the substantia nigra. This leads to a reduction in a chemical called dopamine in the brain.
> *Lack of awareness of the disease increase the risk.
> *Junk food and bad habits may also cause the disease.

7. BEHAVIOUR `BE`
What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

> DIRECTLY ASSOCIATED:
> *Provide the customer spiral drawing as data.
> *Find ways to reduce advancement of disease.
>
> INDIRECTLY ASSOCIATED:
> *Wait for results.
> *Prepare the mind to even accept the negative result.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS `TR`
What triggers customers to act? i.e., seeing their neighbor installing solar panels, reading about a more efficient solution in the news.

> *Observe the symptoms that arise in customer's health.
> *Promote the awareness.

4. EMOTIONS: BEFORE / AFTER `EM`
How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

> BEFORE:
> *Tremor in hands, arms, legs, jaw, or head.
> *Muscle stiffness, where muscle remains contracted for a long time.
> *Slowness of movement.
> *Impaired balance and coordination, sometimes leading to falls.

10. YOUR SOLUTION `SL`
If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behavior.

> *Due to tremor and rigidity in muscles, it is difficult to draw smooth spirals and waves.
> *So, we use spiral drawings as dataset.
> *Our goal is to quantify the images and train the machine learning model to classify then accurately.
> * We will use HOG (Histogram of Oriented Gradients) to extract features from the dataset and then passed these features to a Random Forest Classifier to train the model on classifying patterns of patients and healthy drawings.

8. CHANNELS of BEHAVIOUR `CH`
8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7

> *Online prediction is simple and free of cost.
> *User interactive website is available.

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

> *Consult the doctor and follow their advice.
> *Emotional support from family and friends.

Identify strong TR & EM