

## DESIGN PHASE –I

DATE: <b>11.10.2022</b>	TEAM ID: <b>PNT2022TMID37898</b>	PROJECT NAME: <b>Smart Solution for Railways</b>	Maximum Marks: <b>2 Marks</b>
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**Problem-Solution fit canvas 2.0** Technologically advanced approach to reduce the work load of the users and also the use of paper.

Focus on J&P, tap into BE, understand CS fit into CC

Tap into CC

### 1. CUSTOMER SEGMENT(S)

CS

Who is your customer?  
i.e. working segments of 0.5 to 1 hrs.

- Railway passengers
- Ticket collectors
- Railway management system.

### 6. CUSTOMER

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.

- Time slot management
- Cyber security issues
- Poor network connection.
- Poor functioning of server due to heavy network traffic
- Delayed location updates due to

### 5. AVAILABLE SOLUTIONS

AS

- A user friendly web page – manages ticket booking.
- For each booking QR code is generated – for identifying passenger.
- Using GPS module – live status of the journey is updated.
- Passenger details are stored in database .

### 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.

- Efficient time management
- Continuous information updation.
- Authorized ticket management system.
- Simple and efficient verification system – both for management and passenger.

### 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?

- Manual ticket booking system is time consuming.
- Sudden cancellation of train are not updated on time.
- Ticket checking is time consuming and duplication of ticket can be sorted out easily.

### 7. BEHAVIOUR

BE

What does your customer do to address the problem and get the job done?

- Make use of authorized web pages- in order duplicate systems.
- Unique QR Code – Makes the job of ticket collector simple and can be carried out in an efficient manner.
- Live location of journey- helps the passenger to know there status constantly through out the journey.

**3. TRIGGERS****TR**

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

Easy ticket booking system-that avoids long queues.  
Improved data confidentiality mechanism.

**4. EMOTIONS: BEFORE / AFTER****EM**

Passengers feel offline ticket booking is more time consuming process.  
It is difficult for ticket checker to sort out the duplication in tickets.

**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 behaviour.

- Ticket booking system – Web page designed where public can book seats based on the availability.
- Unique QR Code – For ensuring authorization
- GPS module present in the train – Tracking the live location of the train.

**8. CHANNELS of BEHAVIOUR****CH****ONLINE**

Make use of authorized web page  
Make use of QR code- that confirms their passenger identity.

**OFFLINE**

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

Ticket collectors make use of QR Code scanners to get the passenger details.  
Passengers can board into their train without waiting in long queues for ticket booking.



P