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DAIICT Institute Research Proposal

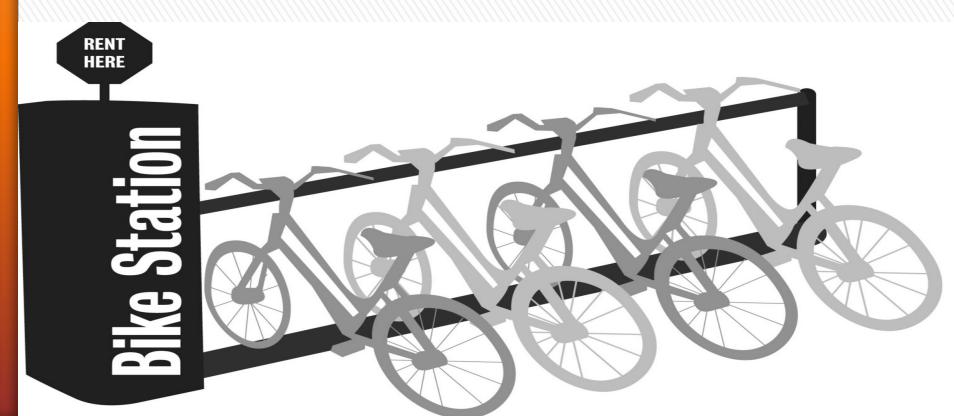
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Introduction

Commuting and mobility has become a major issue due to increase in population and urbanization. Hence there has been a significant rise in number of people who are adopting 'Cycle for Work' initiative. Encouraging this trend, We RentACycle have designed a plan which will make it easy for people to rent a cycle and commute.



Program Benefits

At community level:

- Fosters rapid transit and commute services, in turn, reducing traffic congestion.
- Reduce household transportation expenditure.
- Reduce dependency on heavy automobile transportation.
- Reduce carbon emission and helping against global warming
- Cycling is one of the best ways of exercising which improves physical, mental and emotional health reducing risk of heart disease and obesity.

At corporate level: (For our company)

- Increase in economic activity through membership benefits and plans.
- Increase in bicycle sale. (opportunity to start bicycle manufacturing in near future).
- Increased marketing and sponsorship opportunities through advertising on our bicycle stations.

Interview Questions for Customer

We'll be conducting interviews with at least 12-15 users (using online forms or offline face-to-face). The answers to these questions will help us better understand their requirements.

- 1. How frequently do you rent a bicycle?
- Daily
- Thrice a week
- Once in a week
- Never
- 2. While renting bicycle what would you give priority to cost or ease of renting?
- 3. How do you decide from whom to rent bicycle?

- 4. Which mode of payment do you prefer?
- Cash
- Wallet
- 5. For what purpose do you rent a bicycle?
- 6. Do you rent bicycle for local commute or for long distance?
- 7. Are you satisfied with services of your current hirer? Why?
- 8. Will you be interested in having a functionality to pre-book your bicycle i.e. 1-2 hours before your actual commute start time? If 'Yes' are you willing to pay 2-3% higher than standard rates for advance booking?

System Planning

> Target Geography & Segment

Target Areas Near:

- Shopping malls
- Offices
- Schools and colleges
- Consumer market
- Hospitals
- Bus stops, Railway station, Airport
- Hotels
- Intra-campus commute (for campus >30 acres)

In next slide we'll see the map of Bangalore city and each blue point represent our cycle station. The 55 station points in map are placed in highly dense areas of Bangalore city.

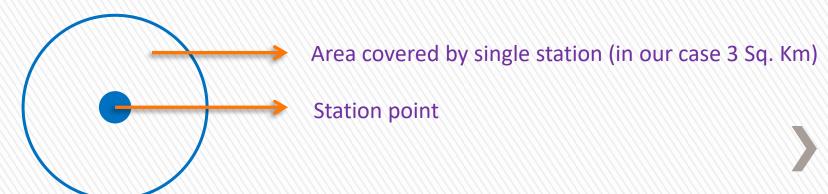
Roll-out plan for RentACycle station installation:

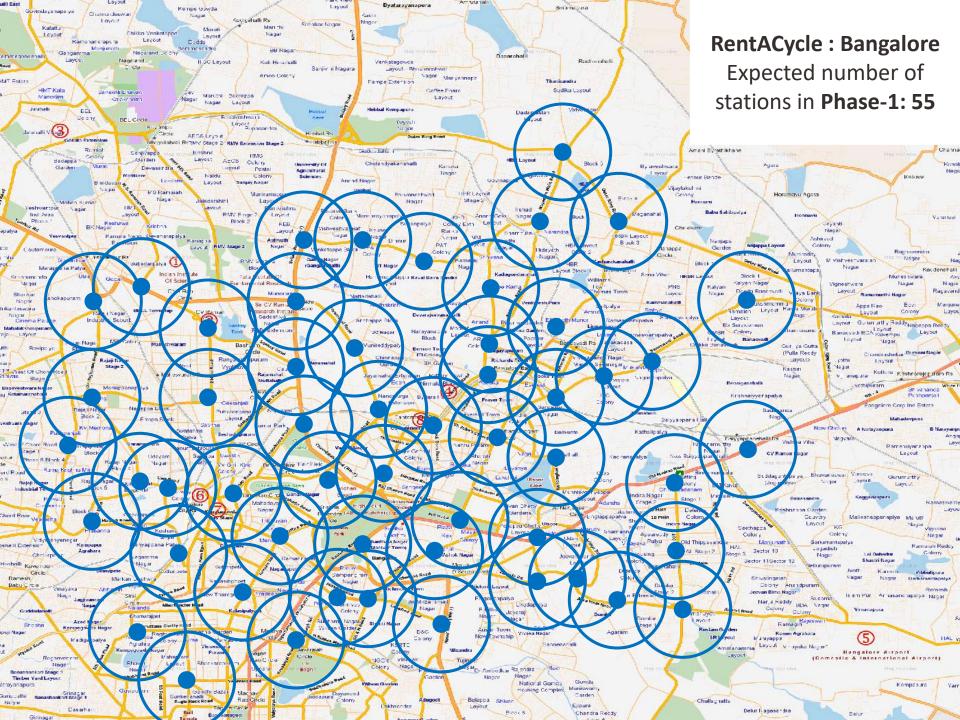
Phase-1: 55 stations / 825 Bicycles / 3 Sq. Km

Phase-2: 65 stations / 975 Bicycles / 2.5 Sq. Km

(Note: Number of stations in Phase-1 and Phase-2 are non-cumulative i.e. at the end of phase two we'll have total 120 stations with 1800 bicycles.)

Symbol Representation in map:





System Planning...contd

Cycle Station Installation

- Users will have access to our cycle station every 3 Sq. Km in Phase V1. In Phase V2 we plan to reduce it to 2.5 Sq. Km.
- Due to our limiting fixed budget, the best infrastructure for our station installation would be 'Portable Cabin Shops'. (Image shown on next page).
- Each portable Cabin Shops can easily fit 12-15 bicycles, along with one table and a chair for attendant.
- The attendant will be responsible for taking ownership of the station, keep track of number of bicycle, check quality before check-in and check-out out of bicycles and resolve any customer facing issues.

Cycle Station infrastructure (Tentative)



- Portable cycle station
- Can easily accommodate 12-15 cycles
- Space for an attendant along with table and chair (if required)
- We can partner with local manufacturer and order these cabins in stock at **discounted rates**. (also bargain, if required ☺)

System Planning...contd

Customer Interaction With System (Part – A)

- Each cycle will have a unique identifier (or ID).
- Customer will interact (lock or unlock) with the cycle through this ID.
- To speed up the user interaction with the cycle (or our system) we can bind **QR code** to each cycle.

Customer (or even us) will interact with cycle by scanning this QR

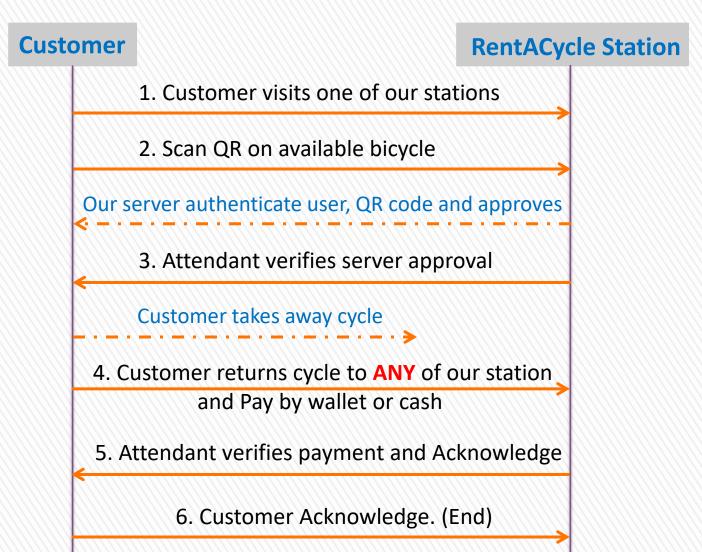
code with the help of our **mobile application**.





Customer Interaction With System (Part – B)

Concept A: On-site booking



Customer Interaction With System (Part – B)

Concept B: Off-site booking (or Advance booking)

Customer RentACycle App 1. Customer opens App. Chooses renting station from list. Pre-book cycle 1-2 hours before commute 2. Server Acknowledge and book cycle. Send confirmation SMS, email along with a QR code 3. Customer visits that station. Shows SMS or email or QR code to station attendant 4. Attendant verifies customer by SMS or by scanning QR code through his mobile If everything is alright. 5. Attendant gives a cycle. Customer acknowledges and commute

6. Customer returns to ANY station. Returns cycle. Pay. Acknowledge

Intended Timeline

Research

1 Month: April
(Market survey, User interview, Competitive analysis)

Month - 1

Initial Prototype (Cycle + App)

2 Month: May – June

(Design QR code system and basic functional app to scan and rent cycle)

Month - 2

Usability - 2

20 Days: Aug
Test the prototype with
the users

Month - 4

Improvement and changes

<u>10 Days: July</u> Re-iterate development

Month - 3

Usability - 1

20 Days: July
Test the prototype with
the users

Month - 3

Site planning

2 Months: Aug - Oct Location planning and permission

Month - 5 & 6

RentACycle App Deployment + Operations + Marketing + Launch

3 Months: Aug - Nov

Station installation, infrastructure development, branding and marketing.

Month -7, 8 & 9

Cycle Prototype

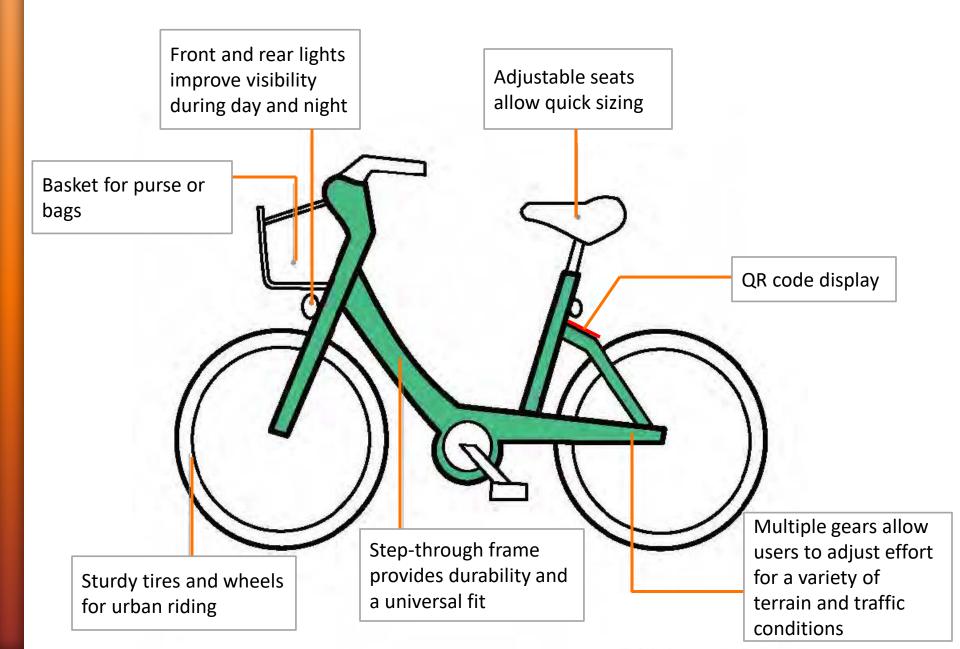


Image References

Image	Reference URL
Slide 4	
Bike Station	https://dailybruin.com/2012/0 4/24/bike_nation_to_bring_bi cycle_rental_kiosks_to_westw ood_in_the_fall/
Slide 10: Bangalore Map	http://www.orangesmile.com/ travelguide/bangalore/high- resolution-maps.htm

Image References...contd

Image	Reference URL
Slide 13: Cycle	https://commons.wikimedia.o rg/wiki/File:USDOT_highway_s ign_bicycle_symbol _black.svg
Slide 13: Mobile Mockup	https://mockuphone.com/#ios

Image References...contd

Image	Reference URL
Slide 17: Cycle	https://publicdomainvectors.o rg/en/free-bicycle-horse-rider- vector
Slide 13: QR Code	
	https://cdnqrcgde.s3-eu-west- 1.amazonaws.com/wp- content/uploads/2013/11/jpe g.jpg

