

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	30 <sup>th</sup> October 2022
Team ID	PNT2022TMID35008
Project Name	A new hint to transportation-Analysis of the NYC bike share system
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	<b>User Registration</b>	User can signup for an annual membership online , or buy a 24-Hour or 7-Day pass at any station.
FR-2	<b>User Confirmation</b>	User can sign into the NYC Bike app or pick up a key to unlock thousands of bikes across Manhattan , Brooklyn , Queens, The Bronx and Jersey City.
FR-3	<b>Interoperability</b>	With your membership you can take as many rides as you want while your membership is active , and the first 45 minutes of each ride are included in your plan when you ride a classic bike.
FR-4	<b>Accuracy</b>	The far majority of the rides were in the very busy Manhattan Island , taken by male users during morning and evening rush hours.
FR-5	<b>Compliance</b>	If you go over the time limit , overtime fees apply. The fees increase every additional half hour or 45 minutes the bike is out.
FR-6	<b>Concise</b>	Bike sharing systems are fleets of specially designed , heavy-duty , very durable bikes that are locked into a network of docking stations sited at regular intervals around a city.

### Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	User can sign into the NYC Bike app or pick up a bike at any station and return it to any station.
NFR-2	<b>Security</b>	No need to worry about storage , maintenance , theft; it's a carefree way to ride.
NFR-3	<b>Reliability</b>	The user can find station locations on the NYC Bike website , and at any Bike station.
NFR-4	<b>Performance</b>	A new NYC Bike app recently launched , with features to make rides smoother and more convenient. The members will receive a remainder email 5 days before their next automatic monthly membership payment so that they can adjust their membership if needed.
NFR-5	<b>Availability</b>	The availability of bikes and empty docks is a useful metric for any bike share system , bikes must be available when and where members want to use them.
NFR-6	<b>Scalability</b>	NYC bike system has become the largest bike sharing system in the USA with 12,000 bikes. They operate across 60 neighbourhoods in New York City through 750 stations.