**User Manual for Bicycle Rental System**

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# 1. Introduction

Bicycle Rental System is an inventory management tool for bicycle rental vendors to help manage the inventory of the bicycle fleets.

# 2. Pre-Loaded Data

Bicycle Rental System automatically comes with pre-loaded data.

5 Bicycle Types are included: Adult, Kids, Tandem, Family, Pedal

Other bicycle types will not be included in this application.

Hourly rate of for the bicycle rental is also pre-loaded with the following prices:

• Adult Single Bike: $8 per hour

• Kids Bike: $6 per hour

• Tandem Bike: $16 per hour

• Family Bike: $35 per hour

• Pedal Go Karts: $26 per hour

# 2. Starting the Application

To run the Bicycle Rental System, run the application on your system. If the application is started for the first time in a day, the system will refresh your bicycle inventory and pull all bicycles available for rent (except for bicycles that are currently in maintenance).

# 3. Main Menu Options

Upon starting the application, you'll be presented with the main menu with the following options:

|  |
| --- |
| \*\*\*\*\* Bicycle Rental System \*\*\*\*\*  A. Add New Inventory  I. Inventory  P. Rental and Payment  R: Return Rental  S: Sales Report Today  M: Maintenance  F: Refresh System for New Day  X. Exit |

Details of options:

|  |  |
| --- | --- |
| A: Add New Inventory | To add a new bicycle to the inventory |
| I: Inventory | To view the current bicycle inventory and their statuses, update bicycle prices, remove bicycle from inventory |
| P: Rental and Payment | To rent a bicycle from the inventory |
| R: Return Rental | To return a rented bicycle |
| S: Sales Report Today | To generate a daily sales report |
| M: Maintenance | To adjust the maintenance status of the bicycle in inventory |

Navigate the menu by entering your chosen option. Note that this is not case sensitive.

## 3.1 A - Add New Inventory

Sample Prompt and Response:

|  |
| --- |
| Bicycle ID? 1  Bicycle Name? [Adult/Kids/Tandem/Family/Pedal] Adult |

Expected Output:

Description: Use this option to add a new bicycle to your inventory.

Sample Input:

yaml

Copy code

Choice: A

Bicycle ID? 1001

Bicycle Name? [Adult/Kids/Tandem/Family/Pedal] Adult

Expected Output: Successfully added new bicycle to the inventory.

B. Inventory Management:

showcasing bicycle IDs, names, prices, and their availability status.

1. Display All Inventory:

Description: View all bicycles in your inventory.

Sample Input:

makefile

Copy code

Choice: I

Subchoice: 1

Expected Output: List of all bicycles in inventory.

2. Update Bicycle Price:

Description: Adjust the price of a bicycle.

Sample Input:

makefile

Copy code

Choice: I

Subchoice: 2

Bicycle Name? Adult

Price? (numeric) 15

Expected Output: Bicycle price updated successfully.

3. Remove Bicycle:

Description: Remove a bicycle from the inventory.

Sample Input:

yaml

Copy code

Choice: I

Subchoice: 3

Bicycle ID? 1001

Expected Output: Bicycle removed from the inventory.

P - Rental and Payment: Choose a bicycle for rental, specify the hours, and make a payment. The system will keep a record of the booking.

C. Rental and Payment:

Description: Rent out bicycles and process payments.

Sample Input:

vbnet

Copy code

Choice: P

Bicycle Name? Adult

Number to Rent? 2

How many hours? 4

Expected Output: Bicycles rented out successfully.

D. Return Rental:

Description: Process the return of a rented bicycle.

Sample Input:

vbnet

Copy code

Choice: R

Bicycle ID to return? 1001

Expected Output: Bicycle returned successfully.

R - Return: Return a rented bicycle. The system will check the return time, un-tag the rented status, and process any additional payment due to extended hours or late return.

S - Sales Report Today: Displays a report of all transactions for the day on the screen. You also have the option to save this report to a text file.

E. Sales Report Today:

Description: Generate a sales report for the specified date.

Sample Input:

vbnet

Copy code

Choice: S

Enter the date (YYYY-MM-DD): 2023-08-24

Expected Output: Daily sales report for the entered date.

F. Maintenance:

1. Mark Bicycle for Maintenance:

Description: Mark a bicycle as under maintenance.

Sample Input:

yaml

Copy code

Choice: M

Subchoice: 1

Bicycle ID? 1001

Expected Output: Bicycle marked for maintenance.

2. End Maintenance for Bicycle:

Description: Mark a bicycle as available after maintenance.

Sample Input:

yaml

Copy code

Choice: M

Subchoice: 2

Bicycle ID? 1001

Expected Output: Bicycle maintenance completed and is now available.

Q - Quit: Close the application.

4. Sample Operations and Expected Outputs

Adding New Inventory:

a. Viewing Bicycle Prices:

Use this feature to check the prices of all bicycles available in the inventory.

How to use: Select the "Display Bicycle Price" option from the main menu.

b. Renting Out Bicycles:

Allows users to rent a specific type of bicycle for a specified duration.

How to use:

Select the "Rent Out Bicycle" option from the main menu.

Enter the type of bicycle you wish to rent.

Specify the number of hours you wish to rent the bicycle for.

Enter the number of bicycles of the specified type you wish to rent.

c. Returning Bicycles:

Process a bicycle's return, view the total rent, and check if the return was made on time.

How to use:

Select the "Return Bicycle" option from the main menu.

Enter the bicycle's unique ID that you wish to return.

vbnet

Copy code

Choose Option: A

Enter Bicycle Name: MountainPro

MountainPro has been added to the inventory.

Viewing Inventory:

markdown

Copy code

Choose Option: I

Available Bicycles:

1. RoadMaster

2. MountainPro

Rental and Payment:

yaml

Copy code

Choose Option: P

Available Bicycles:

1. RoadMaster

2. MountainPro

Choose Bicycle Number: 2

Enter Hours: 5

Total Amount: $50

Payment Successful.

MountainPro has been rented.

Returning a Bicycle:

vbnet

Copy code

Choose Option: R

Enter Bicycle Name: MountainPro

Hours exceeded by 2.

Additional Amount: $20

Payment Successful.

MountainPro is now available.

Sales Report Today:

vbnet

Copy code

Choose Option: S

Transactions Today:

1. MountainPro rented for 5 hours - $50

2. MountainPro additional time - $20

Do you want to save this report to a file? (Y/N): Y

Report saved to 'sales\_report.txt'.

5. Quitting the Application

To safely close the application, simply choose the 'Q' option from the main menu.

3. Tips:

a. Consistent Refresh: Regularly use the "Refresh System" feature to ensure the system runs efficiently and old transaction data is removed.

b. Rent and Return: Always make sure to properly return any rented bicycles using the "Return Bicycle" feature to avoid discrepancies in the inventory.

c. System Operation Date: If you're unsure when the system was last used, use the "Get Last Run Date" feature. It helps in keeping track of operations and understanding when to refresh the system.

a. Inventory Management: Regularly update the inventory, ensuring that prices are accurate and obsolete items are removed.

b. Maintenance: Ensure that bicycles marked for maintenance are not rented out. Periodically check and end maintenance for available items.

c. Daily Operations: Use the "Refresh System for New Day" function daily to ensure the system is up to date.

Remember, this system continues its operations and retains all the sales and rental data until you choose to quit. The status of the bicycles will persist across sessions on the same day.

Please note that the system uses a database to manage the inventory. Each time you add, remove, or view bicycles, the system interacts with the database to perform these actions. Always follow prompts and enter correct information for a seamless experience.

Thank you for using the Bicycle Rental System!

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