

# Bike Hire System: User Guide

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## Overview

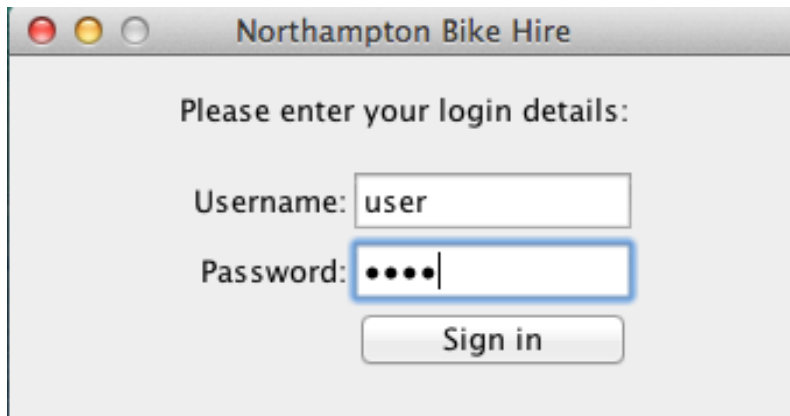
The Bike Hire System's user-interface consists of 4 main tabbed panes: Hire, Customer, Bike and Invoice. A further 2 tabbed panes reside within each main tabbed pane. The table below shows how to navigate to the relevant section for each action.

Main Tab	Sub Tab	Action
Hire	Create	Create a new hire
Hire	View	View all hires
Hire	View	Return a hired bike
Hire	View	View hire statistics
Customer	Create	Create a new customer
Customer	View	View all customers
Bike	Create	Create a new Bike
Bike	View	View all bikes
Bike	View	Repair a damaged bike
Bike	View	View bike statistics
Invoice	Out	View all invoices (out)
Invoice	In	View all invoices (in)

**Table 1: The tab/sub tabs where each action resides.**

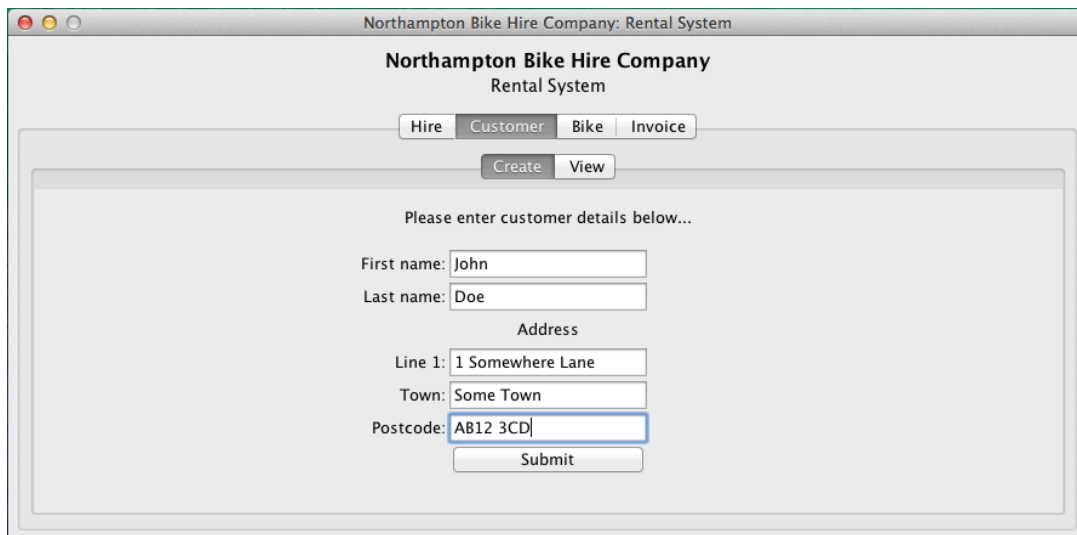
## System Usage Instructions

This section features screenshots of the system in use. Where applicable, instructions or additional information is provided in the screenshot's caption.

A screenshot of a web application window titled "Northampton Bike Hire". The window has a light gray background and a title bar with standard macOS window controls (red, yellow, and green buttons). The main content area contains the text "Please enter your login details:" in a bold, black font. Below this text are two input fields. The first field is labeled "Username:" and contains the text "user". The second field is labeled "Password:" and contains four black dots, indicating a password. A blue rectangular border highlights the password field. Below the input fields is a "Sign in" button with a light gray background and a thin black border.

**Figure 1: GUI - Login Frame**

The login window is displayed when the application is first opened. It is used to control access to the system. The username ("user") and password ("pass") are hardcoded. An error message will be displayed if the credentials entered are incorrect.

A screenshot of a web application window titled "Northampton Bike Hire Company: Rental System". The window has a light gray background and a title bar with standard macOS window controls. The main content area contains the text "Northampton Bike Hire Company Rental System" in a bold, black font. Below this text are four tabs: "Hire", "Customer", "Bike", and "Invoice". The "Customer" tab is selected and highlighted. Below the tabs are two buttons: "Create" and "View". Below these buttons is a large rectangular frame containing the text "Please enter customer details below...". Inside this frame are several input fields. The first field is labeled "First name:" and contains the text "John". The second field is labeled "Last name:" and contains the text "Doe". Below these fields is a label "Address". Below the "Address" label are three input fields. The first field is labeled "Line 1:" and contains the text "1 Somewhere Lane". The second field is labeled "Town:" and contains the text "Some Town". The third field is labeled "Postcode:" and contains the text "AB12 3CD". Below the input fields is a "Submit" button with a light gray background and a thin black border.

**Figure 2: GUI - Create Customer Panel**

All fields must be completed in order to create a new customer. If one or more fields are incomplete, an error message will be displayed when the user clicks submit. The GUI displays a confirmation message when a new customer is successfully created.

Customer ID	First name	Last name	Line 1	Town	Postcode
CUST1	Jane	North	5 Newton Road	Newton Longville	MK17 9GQ
CUST2	Elvis	Blakeland	49 Roxton Road	Great Barford	MK44 5YJ
CUST3	Samantha	Heyman	16 Orchard Way	Buckingham	MK18 2NG
CUST4	Christopher	Hamelton	28 Clovelly Court	Corby	NN18 8EF
CUST5	Nicky	Stern	59 Kingsway	Luton	LU4 8AU
CUST6	Edgar	Tooler	8 Avebury Way	Northampton	NN4 0QD
CUST7	Sheila	Pascal	17 Windsor Avenue	Newport Pagnell	MK16 8HA
CUST8	Michael	Brunt	1 Eleanors Garden	Leighton Buzzard	LU7 0GJ
CUST9	Alex	Harrison	12 Wymington Road	Rushden	NN10 9TG

**Figure 3: GUI - Customer View Panel**

The user can view all customer details from within the Customer->View tab.

Please enter bike details below...

Make:

Model:

Function:

Demographic:

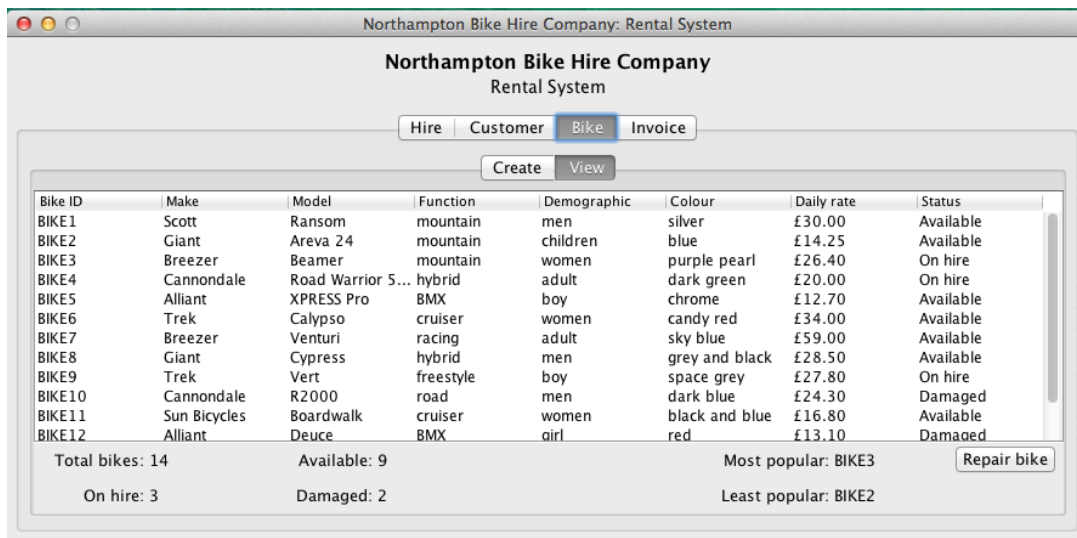
Colour:

Daily rate: £

Deposit: £

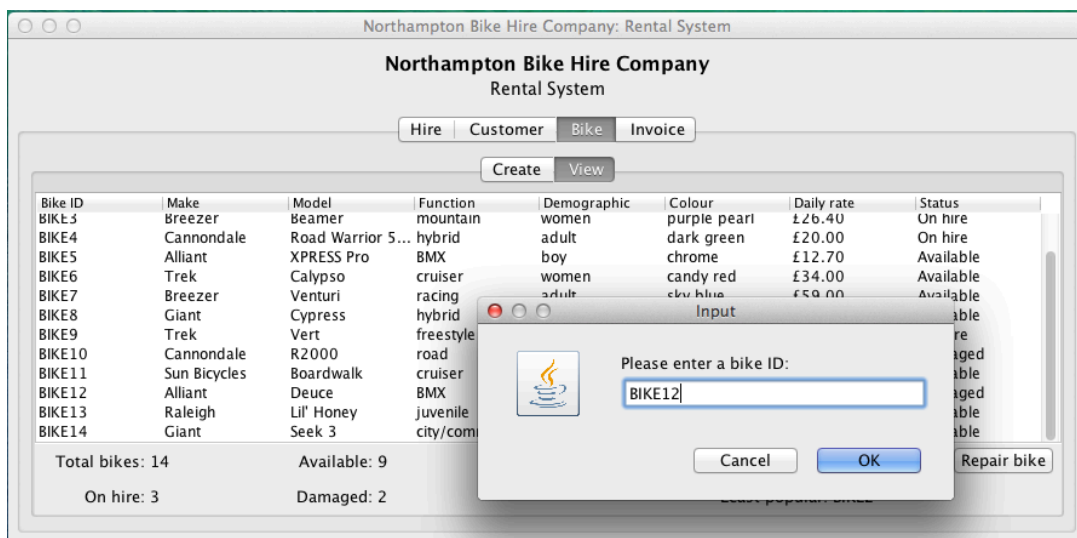
**Figure 4: GUI - Create Bike Panel**

All fields must be completed in order to create a new bike. If one or more fields are incomplete, an error message will be displayed when the user clicks submit. Furthermore, the value entered in the Daily rate and Deposit fields must be greater than 0 and in numeric format. The GUI displays a confirmation message when a new bike is successfully created.



**Figure 5: GUI - Bike View Panel**

The user can view all bike details from within the Bike->View tab. Statistics are also displayed at the bottom of the panel, including total amount of: all bikes, available bikes, bikes on hire and damaged bikes. The most and least popular bikes can also be seen. To repair a bike, click on the Repair bike button located at the bottom right of the panel. An input dialog box will prompt for the damaged bike's ID (as shown in Figure 6: GUI - Repair Bike).



**Figure 6: GUI - Repair Bike**

To repair a bike, click on the Repair bike button located at the bottom right of the panel. An input dialog box will prompt for the damaged bike's ID. An error message will be displayed if the bike ID entered is not recognised or the bike is not currently damaged. The GUI displays a confirmation message when a bike is repaired.

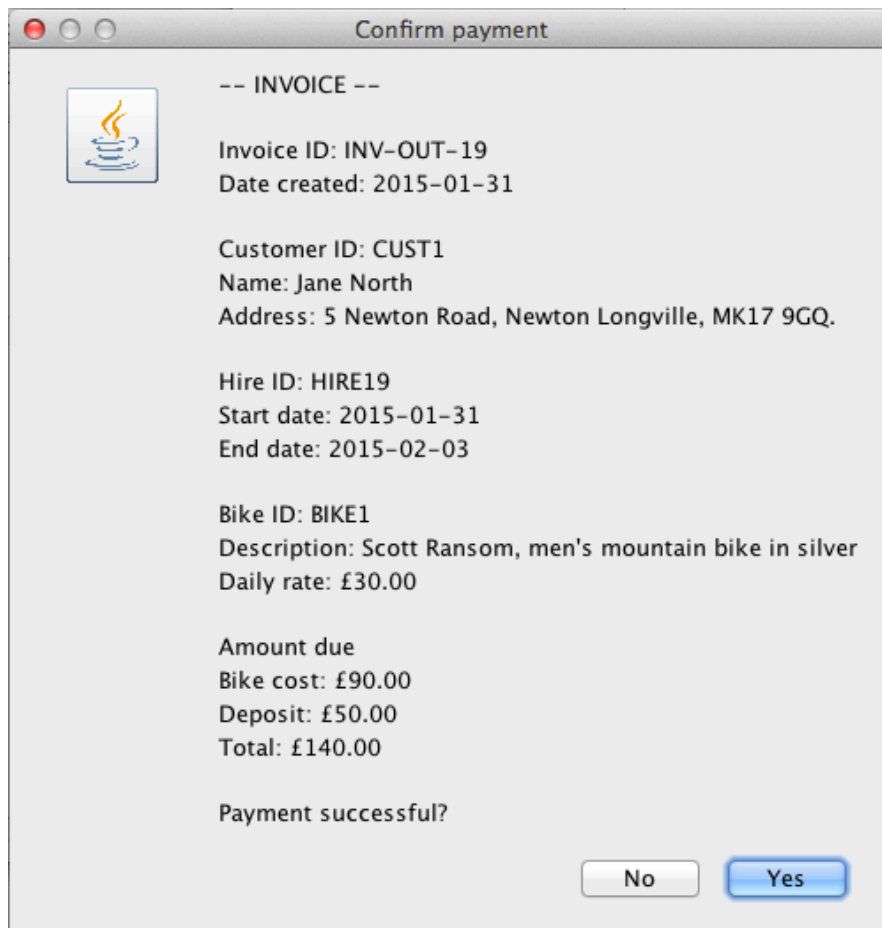
The screenshot shows a web application window titled "Northampton Bike Hire Company: Rental System". Inside the window, the title "Northampton Bike Hire Company Rental System" is displayed. Below the title, there are four tabs: "Hire", "Customer", "Bike", and "Invoice". The "Hire" tab is currently selected. Below the tabs, there are two buttons: "Create" and "View". The "Create" button is highlighted. Below the buttons, there is a text prompt: "Please enter hire details below...". Below the prompt, there are three input fields: "Customer ID:" with the value "CUST1", "Bike ID:" with the value "BIKE1", and "Return date:" with the value "12-02-2015". To the right of the "Return date" field, there is a text label "(dd-mm-yyyy)". Below the input fields, there is a "Submit" button.

**Figure 7: GUI - Create Hire Panel**

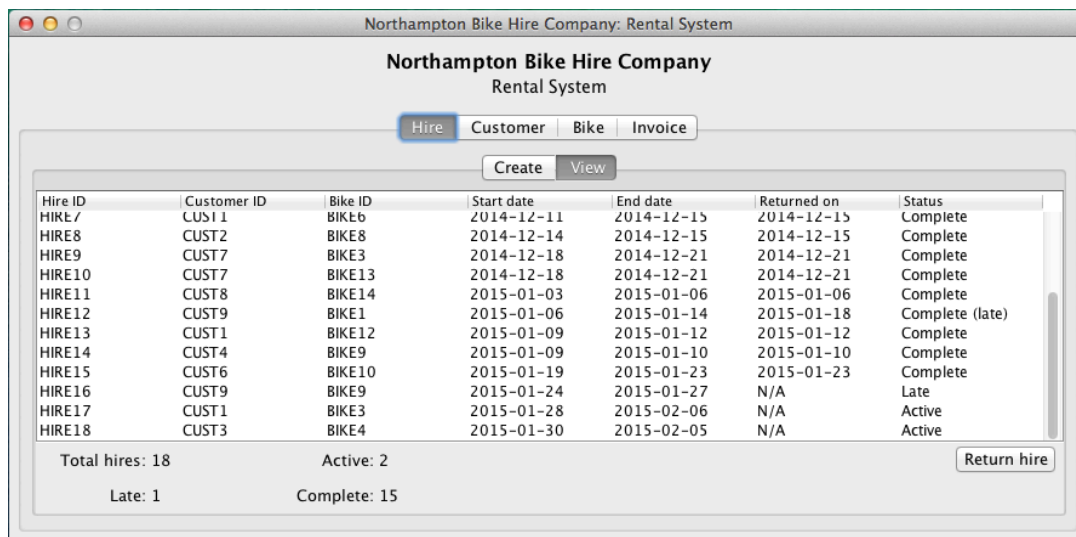
All fields must be completed in order to create a new hire. The system will display an error message when the Submit button is clicked if:

- One or more fields are incomplete
- The Customer ID entered is not recognized
- The Bike ID entered is not recognized
- The format of the return date is not recognisable as a date
- The return date is before the current date

If all fields are complete and valid, the GUI will display the invoice for the newly created hire, (as shown in Figure 8: GUI - Confirm Payment Window). If the user clicks yes, the hire and invoice will be added to the system. If the user clicks no the hire and invoice will be discarded.

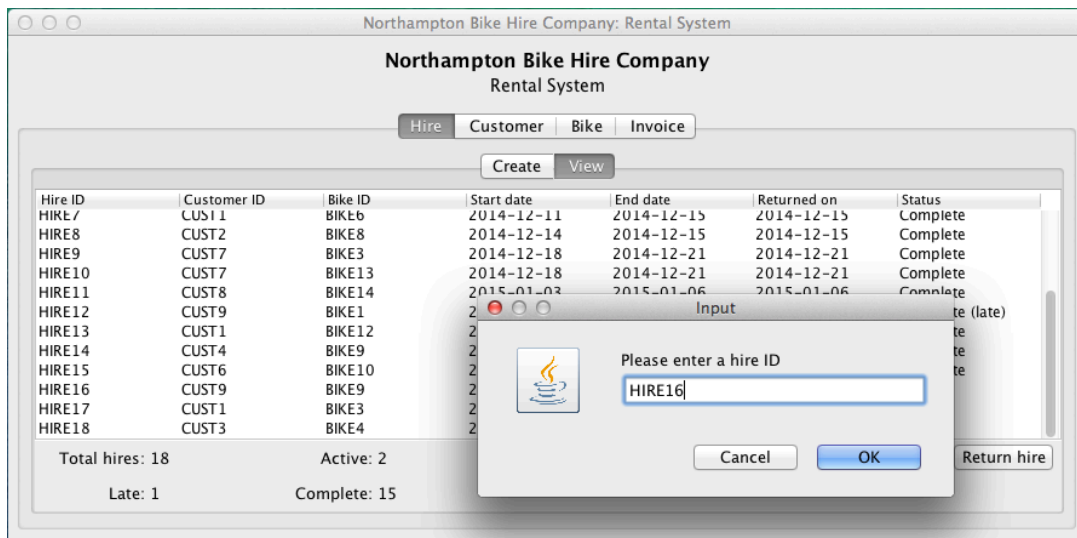


**Figure 8: GUI - Confirm Payment Window**



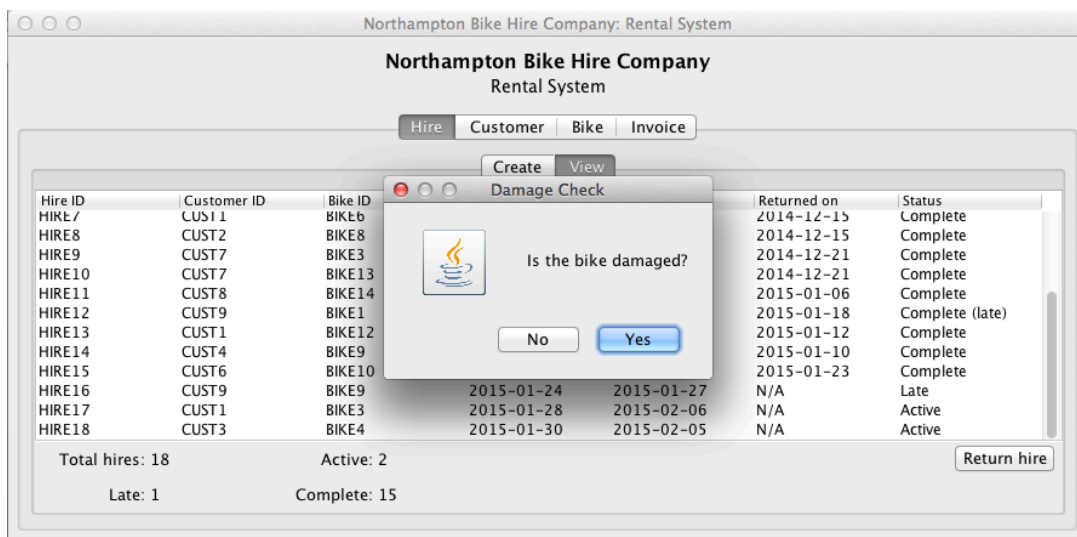
**Figure 9: GUI - View Hire Panel**

The user can view all hire details from within the Hire->View tab. Statistics are also displayed at the bottom of the panel, including total amount of: all hires, active hires, late hires and completed hires. To return a hire, click on the Return hire button located at the bottom right of the panel. An input dialog box will prompt for the hire's ID (as shown in Figure 10: GUI - Return Hire).



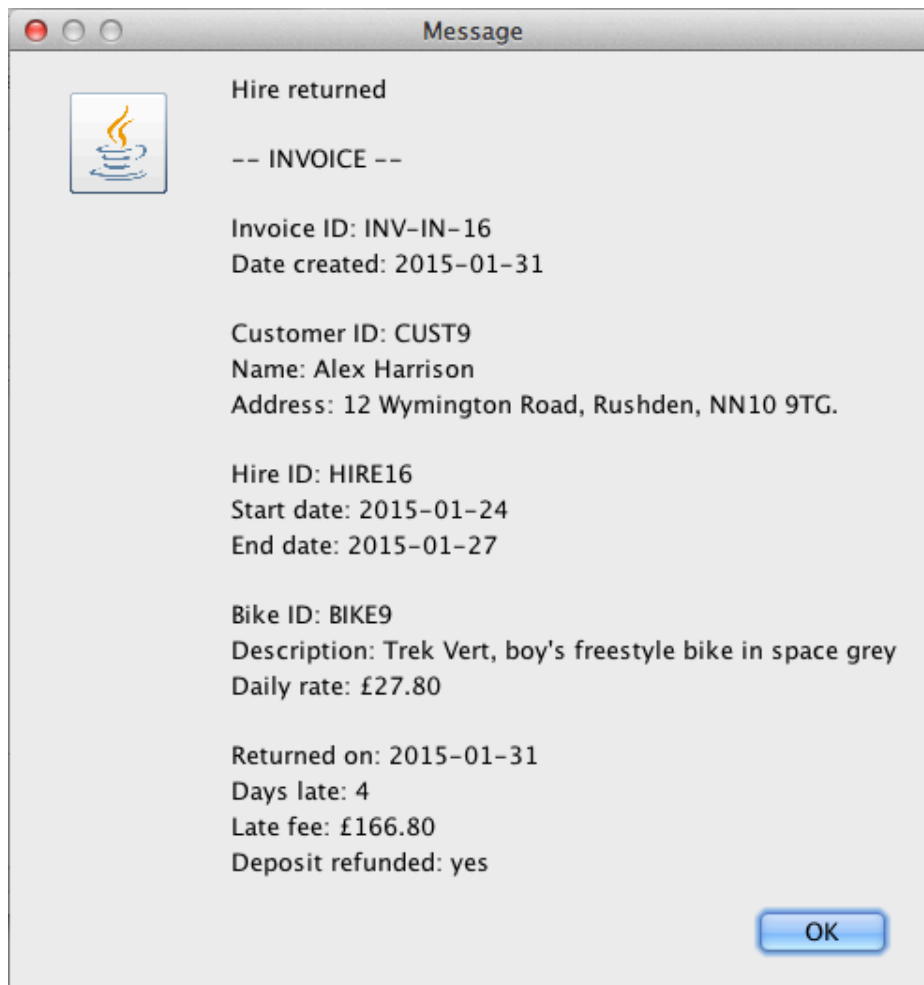
**Figure 10: GUI - Return Hire**

Hires can be returned by clicking on the Return hire button located at the bottom right of the panel. An input dialog box will prompt for the hire's ID. An error message will be displayed if the hire ID entered is not recognised or the hire is not currently suitable for return. If the hire ID is recognised and suitable for return, the GUI will display a window asking if the bike is damaged (as shown in Figure 11: GUI - Damage Check), after which the invoice for the returned hire will be displayed (as shown in Figure 12: GUI - Invoice in).



**Figure 11: GUI - Damage Check**

If the bike is damaged, the customer's deposit is not refunded.



**Figure 12: GUI - Invoice in**

**Northampton Bike Hire Company: Rental System**

Northampton Bike Hire Company  
Rental System

Hire Customer Bike **Invoice**

Out In

Invoice ID	Hire ID	Customer ID	Bike ID	Bike cost	Deposit	Total
INV-OUT-4	HIRE4	CUST4	BIKE5	£25.40	£20.00	£45.40
INV-OUT-5	HIRE5	CUST5	BIKE13	£27.00	£15.00	£42.00
INV-OUT-6	HIRE6	CUST6	BIKE3	£264.00	£38.00	£302.00
INV-OUT-7	HIRE7	CUST1	BIKE6	£136.00	£46.00	£182.00
INV-OUT-8	HIRE8	CUST2	BIKE8	£28.50	£35.00	£63.50
INV-OUT-9	HIRE9	CUST7	BIKE3	£79.20	£38.00	£117.20
INV-OUT-10	HIRE10	CUST7	BIKE13	£27.00	£15.00	£42.00
INV-OUT-11	HIRE11	CUST8	BIKE14	£142.80	£56.00	£198.80
INV-OUT-12	HIRE12	CUST9	BIKE1	£240.00	£50.00	£290.00
INV-OUT-13	HIRE13	CUST1	BIKE12	£39.30	£21.20	£60.50
INV-OUT-14	HIRE14	CUST4	BIKE9	£27.80	£50.00	£77.80
INV-OUT-15	HIRE15	CUST6	BIKE10	£97.20	£36.00	£133.20
INV-OUT-16	HIRE16	CUST9	BIKE9	£83.40	£50.00	£133.40
INV-OUT-17	HIRE17	CUST1	BIKE3	£237.60	£38.00	£275.60
INV-OUT-18	HIRE18	CUST3	BIKE4	£120.00	£32.00	£152.00

**Figure 13: GUI - View Invoices Out**

The user can view all invoices generated at time of bike hire from within the Invoice->Out tab.



Northampton Bike Hire Company: Rental System

Northampton Bike Hire Company  
Rental System

Hire Customer Bike Invoice

Out In

Invoice ID	Hire ID	Customer ID	Bike ID	Days late	Late fee	Bike damaged?
INV-IN-1	HIRE1	CUST1	BIKE3	0	£00.00	no
INV-IN-2	HIRE2	CUST2	BIKE7	0	£00.00	no
INV-IN-3	HIRE3	CUST3	BIKE6	1	£51.00	no
INV-IN-4	HIRE4	CUST4	BIKE5	0	£00.00	no
INV-IN-5	HIRE5	CUST5	BIKE13	0	£00.00	no
INV-IN-6	HIRE6	CUST6	BIKE3	2	£79.20	no
INV-IN-7	HIRE7	CUST1	BIKE6	0	£00.00	no
INV-IN-8	HIRE8	CUST2	BIKE8	0	£00.00	no
INV-IN-9	HIRE9	CUST7	BIKE3	0	£00.00	no
INV-IN-10	HIRE10	CUST7	BIKE13	0	£00.00	no
INV-IN-11	HIRE11	CUST8	BIKE14	0	£00.00	no
INV-IN-12	HIRE12	CUST9	BIKE1	4	£180.00	no
INV-IN-13	HIRE13	CUST1	BIKE12	0	£00.00	yes
INV-IN-14	HIRE14	CUST4	BIKE9	0	£00.00	no
INV-IN-15	HIRE15	CUST6	BIKE10	0	£00.00	yes

**Figure 14: GUI - View Invoices In**

The user can view all invoices generated at time of bike return from within the Invoice->In tab.