**Prototype**

**Objectives to be concluded.**

Below I have listed objectives that I will be including and why I am including them.

* **The system should be able to work and fully function.**

This will be in the prototype if the system doesn’t work or fully function, it is not going to look good for Raptor’s Hotel if certain functions don’t work this entire project may be just a waste of time & effort & money (if it was paid) and may need to look for someone else to make the project.

PROTOTYPEs

PROTOTYPEs

* **Customer & Staff members should be able to log in.**

This will be in the prototype because both customer and staff will need to work if they don’t then there is no way to confirm whether the person who has logged in is a staff member or a customer member. Furthermore, if a customer logs in to a staff member account, then the customer may potentially find information, they shouldn’t be able to access. This can lead to customers possibly stealing data or changing room prices which will not only Raptor Hotel or me but even other customers.

* **Customer & Staff members should be able to sign up.**

This will be in the prototype because if either customers or staff members aren’t able to sign up, they won’t be able to sign up, making the entire project pretty much useless.

* **Should authorize staff to add, edit, delete, and find customers.**

This will be in the prototype because if a customer’s name is not typed in properly, or other information is not typed up properly, it may cause concerns to customers. Furthermore, being able to add delete, and find customers makes the program easier to use and more user-friendly and will help me implement further features easily.

* **Customers should be able to edit saved information.**

This will be in the prototype because if a customer’s name is not typed in properly, or other information is not typed up properly, it may cause concerns to customers.

* **Customers should be able to see previous bookings.**

This will be in the prototype because clients can see all their previous bookings meaning they can be assured of a great experience like the previous few times.

* **Customers & Staff members should be able to log out.**

This will be in the prototype because if either the customer or staff aren’t able to log out will raise concerns about the system and the hotel. Furthermore, other staff members or customers may not be able to use it as a user is still logged in, this could potentially lead to data being stolen or damaged. In addition. The user who logged in may be worried as he may think that he broke the system and ruined pretty much all the experience in the hotel.

* **Should authorize staff members to make changes to rooms.**

This will be included in the prototype because if a room has had some modifications due to for example a bed that is broken will require manually changing the bed that is broken and may potentially decide to innovate the room by for example changing a queen-size bed to a king-size bed. If this is not included in the prototype then these changes will affect the booking of a room. Furthermore, if this is not added to the prototype then it may cause potential delays and unnecessary confusion in the booking process. Therefore, I will be adding this to the prototype.

* **The project should connect to a database.**

This will be included in the prototype as if the project does not connect to the database, no one will be able to book a room, which will result in me wasting time and wasting the Raptor’s Hotel time and potentially ruin the overall brand image of the hotel if the program is not able to carry out at bare minimum simple functions. Furthermore, if the project is not able to connect to the database, the staff member may not be able to delete, update, or add a room, which may also cause waste time and create confusion during the booking process. Therefore, I will be adding this to the prototype.

**Objectives not to be concluded.**

**Below** I have listed objectives that I will not be including and why I am not including them.

NO PROTOTYPEs

* **The system should look neat and presentable.**

This will not be in the prototype because aesthetics is not the main focus of the project. Therefore, I will not include this objective in the prototype.

* **The system should be user-friendly.**

This will not be in the prototype because if customers don’t know how to use the system there will be staff members who will be trained to use the system. Therefore, I will not include this in the prototype. Therefore, I will not include this objective in the prototype.

* **The system should have the “what’s around” feature where it displays nearby landmarks.**

This will not be in the prototype as this is an addition to the main programme meaning this is not necessary to customers when they are booking rooms. Therefore, I will not include this objective in the prototype.

* **There should be pictures of the room in the system.**

This will not be in the prototype because pictures are not a must-have when booking as you can book a room without seeing pictures. Therefore, I will not include this objective in the prototype.

* **The system should display a brief description of the room with what the room comes with, for example, a coffee machine.**

This will not be in the prototype because a description of the room is not necessary when you are booking a room. You can book a room without having a description of the room. Therefore, I will not include this objective in the prototype.

* **Customers should be able to edit saved information.**

This will not be in the prototype because customers editing their saved information Is not essential as there are staff members who can edit customer information. Furthermore, this is just an addition for clients that may be timid to ask staff members to change their details. Therefore, I will not include this objective in the prototype.

* **There should be no collision.**

This will not be in the prototype because it is a complex algorithm. Furthermore, I am an A-level student with 2 other A levels to deal with so will not have a lot of time to implement complex features. In addition, it is just an addition to the program to make it more effective but does not affect the booking system itself. Therefore, I will not include this objective in the prototype.

* **Should display data in tables (data grid view).**

This will not be included in the prototype as this is an addition to the program and does not affect the booking system. Therefore, I will not be including this objective in the prototype.

**Evaluation of the prototype.**

Below I will be listing titles for each objective that has been included in the prototype, then below the form, I will show how I met those objectives, the form, user interface, and screenshots of the section that carries out the objective/s.

* **Customer & Staff members should be able to sign up.**

**How it works:**

For this objective I will need only need 2 different forms (1 for staff and 1 for customers), when my project is running it should look like this:

**Staff sign in:**

A screenshot of a computer

Description automatically generated

**Customer sign-in:**

A screenshot of a computer screen

Description automatically generated

To add customer records, the user should fill in all the customer details in textboxes and datetimepicker. Then the user should press the button called “New” to add the record to the database (Shown in another objective).

Once the “New” button has been clicked customer ID will be generated and outputted onto a level shown on the form (see below):

A screenshot of a computer

Description automatically generated

Robin Star is now a customer of the Raptor’s Hotel with a record in the database and can log in to the login form.

As for staff, to add Staff records, another staff member should fill in all the new staff member's details in text boxes and datetimepicker. Then the staff member should press the button called “New” to add the record to the database (Shown in another objective).

Once the “New” button has been clicked Staff ID will be generated and outputted onto a level shown on the form (see below):

A screenshot of a computer

Description automatically generated

Robert Green is now a staff member of the Raptor’s Hotel with a record in the database and can sign in using the staff log-in form.

**The good features of this objective in the prototype would be:**

* New customers and staff members can be added without the need to go to the database. As a result, less time will be spent adding new customers and staff members. Therefore, Staff members can help other customers.

**The shortcomings of this objective in the prototype would be:**

* Customers may struggle to create an account for themselves. This may be because of a lack of technological experience. As a result, spend more time creating an account. Therefore, they may need staff to guide customers.
* Foreign customers may not know to read or speak English. This is because of the place they may have lived before; they never got the chance to learn English. As a result, they may not know how to sign in. Therefore, they may need staff to guide customers.
* Staff members may need to be trained as they may not have much technological experience. As a result, may spend longer trying to create new staff members or customers an account. Therefore, it may cause customers to get angry and possibly create a bad brand image.
* Customers may enter the wrong information in the system. This may be due to the customer wanting to trespass or keep their information private. As a result, it may result in the hotel getting in trouble for a crime scene or something along those lines. Therefore, it can be dangerous. However, it is hard to verify one’s identity. This is because someone could easily impersonate someone else's identity by lending documents such as passports or driving licenses. Therefore, I will not worry about this too much.
* **Customer & Staff members should be able to log in.**

**How it works:**

For this objective I will need only need 2 different forms (1 for staff and 1 for customers), when my project is running it should look like this:

**Customer log-in:**

A screenshot of a computer screen

Description automatically generated

Customers will be required to have previously signed in the system with their details, afterwards, they must type in their username and password that they have created during the sign-in process. (Shown below:)

**A screenshot of a computer screen

Description automatically generated**

Here we can see Mickey Mouse trying to log in by inputting his username and password to proceed with the login.

After they have entered their username and password, they should press the “log in" button as this will allow them to log in and proceed with the booking reservation.

**A screenshot of a computer

Description automatically generated**

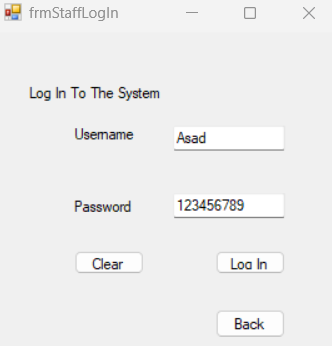
Here we can see Mickey Mouse has successfully logged in and continue booking his reservation.

**Staff log-in:**

A screenshot of a computer screen

Description automatically generated

Staff members will be required to have previously signed in the system with their details, afterwards, they must type in their username and password that they have created during the sign-in process. (Shown below:)

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Here we can see Asad trying to log in by inputting his username and password to proceed with the login.

After they have entered their username and password, they should press the “log in" button as this will allow them to log in and proceed with their work.

**A screenshot of a computer

Description automatically generated**

Here we can see Asad has successfully logged in and continues managing the hotel by adding new staff members or customers, adding rooms or even seeing all the reports by looking at all the bookings.

**The good features of this objective in the prototype would be:**

* New customers and staff members can log in without the need to go to the database. As a result, less time will be spent adding new customers and staff members. Therefore, Staff members can help other customers.

**The shortcomings of this objective in the prototype would be:**

* Customers may struggle to remember usernames and passwords for themselves. This may be because of a lack of technological experience. As a result, spend more time creating an account. Therefore, they may need staff to guide customers.
* Foreign customers may not know to read or speak English. This is because of the place they may have lived before; they never got the chance to learn English. As a result, they may not know how to sign in. Therefore, they may need staff to guide customers.
* Staff members may need to be trained as they may not have much technological experience. As a result, may spend longer trying to log in to potentially change customer information. Therefore, it may cause customers to get angry and possibly create a bad brand image.
* **Should authorize staff to add, edit, delete, and find customers.**

**How it works:**

For this objective I will need only need 1 form (1 for staff), when my project is running it should look like this:

A screenshot of a computer

Description automatically generated

**Adding customers.**

To add customer records, the user should fill in all the customer details in textboxes and datetimepicker. Then the user should press the button called “Save” to add the record to the database (Shown in another objective).

A screenshot of a computer

Description automatically generatedhere we can see that a staff member is creating an account for Hannah Monatanah. We can tell that the staff member is creating a new account because he is inputting details without having a Customer ID.

Once the “Save” button has been clicked customer ID will be generated and outputted onto a level shown on the form (see below):

A screenshot of a computer

Description automatically generated

Below we can see that Hannah Montana has successfully been added to the database.



Here we can see that the system has generated an ID to make searching and deleting customer munch easier and more efficient as we have a search procedure.

**Searching customers.**

**Method 1:**

For searching customers I have 2 different methods, 1st method you will need to input the customer ID in the txtCustID textbox.

A screenshot of a computer

Description automatically generated

After inputting the customer ID, you will have to press the “Search” button which will search for that customer ID in the database and display his/ her details. (example shown below)

A screenshot of a computer

Description automatically generated

Here we can see by inputting customer ID “29” it will display Hannah Monatanah’s details.

**Method 2:**

Another method to search for customers to make searching more efficient is by searching by their surname.

Firstly, you will need to input the customer’s surname in the txtSurname textbox. (shown below).

A screenshot of a computer

Description automatically generated

After inputting the customer's surname, you will have to press the “Search” button which will search for that customer's surname in the database and display his/ her details. (example shown below)

A screenshot of a computer

Description automatically generated

Here we can see by inputting the customer surname “Monatanah” it will display Hannah Monatanah’s details.

If there are 2 or more people with the same surname a list box should pop up. (shown below)

A screenshot of a computer

Description automatically generated

Here when you search for jack in txtSurname there are 2 results if you click on the items in the list box it should show you, their details. (shown below).

A screenshot of a computer

Description automatically generated

**Editing Customer information.**

if a customer wants to change their details, staff members would search for the customer using customer ID or customer Surname. Afterward, change the details you like. (Example below)

let's say Hannah comes to the staff desk to change her phone number as she has a new phone number now as she changed her service provider.

Firstly, you would search for her details either using customer ID or surname.

A screenshot of a computer

Description automatically generated

After inputting the customer ID, you will have to press the “Search” button which will search for that customer ID in the database and display his/ her details.

A screenshot of a computer

Description automatically generated

After getting her details, she says that her new number is “0742133566” so then the staff member will change ”09876543” to “0742133566.

A screenshot of a computer

Description automatically generated

Next, the staff member will need to press the “Save” button to save the details.



Here we can see Hannah’s details have been successfully saved.

**Deleting Customers**

To delete customers, the customer should approach a staff member and then ask a staff member to delete the customer.

Let's say Hannah decided that she doesn’t want to keep her account and wants to delete her account.

Firstly, you would search for her details either using customer ID or surname.

A screenshot of a computer

Description automatically generated

After inputting the customer ID, you will have to press the “Search” button which will search for that customer ID in the database and display his/ her details.

A screenshot of a computer

Description automatically generated

After getting her details, you would need to press the “delete” button as this button will be enabled to be used.

A screenshot of a computer

Description automatically generated

Afterwards, you will have a small interrupt pop-up, asking if you are sure to delete this. To proceed with the delete you will have to press the “Yes" button.

A screenshot of a phone

Description automatically generated

Here we can see all of Hannah’s data has successfully been deleted.

**The good features of this objective in the prototype would be:**

* The solution has achieved the 4 functions mentioned above in the objective; the ability to add, save, edit, delete, and search for customers.
* The search by surname will reduce the chances of data mismatch as you can see every customer with the same surname. As a result, minimizing the risk of changing other customers' information by accident. Therefore, it will not impact the brand's reputation.
* New customers and staff members can log in without the need to go to the database. As a result, less time will be spent adding new customers and staff members. Therefore, Staff members can help other customers.
* Foreign customers may not know to read or speak English. This is because of the place they may have lived before; they never got the chance to learn English. As a result, they may not know how to sign in. Therefore, they may need staff to guide customers.
* Customers may struggle to remember usernames and passwords for themselves. This may be because of a lack of technological experience. As a result, spend more time creating an account. Therefore, they may need staff to guide customers.

**The shortcomings of this objective in the prototype would be:**

* Staff members may need to be trained as they may not have much technological experience. As a result, may spend longer trying to log in to potentially change customer information. Therefore, it may cause customers to get angry and possibly create a bad brand image.
* **Customers should be able to edit saved information.**

**How it works:**

For this objective I will need only need 1 form (1 for the customer), when my project is running it should look like this:

A screenshot of a computer

Description automatically generated

When you get the form running it will automatically show the customer’s details.

Before getting in this form, it will ask the customer to enter their ID again just to double-check.

A screenshot of a computer

Description automatically generated

After entering the correct customer ID of that customer, it will display the customer details.

A screenshot of a computer

Description automatically generated

Here Mickey wants to change his username and password to just Mickey and mouse, so therefore he will change the inputted values into the values he wants and press the “Save” button.



Here we can see that Mickey has successfully changed his username and password.

**The good features of this objective in the prototype would be:**

* The solution has achieved the function mentioned above in the objective; the ability to change customer information by themselves.
* New customers and staff members can log in without the need to go to the database. As a result, less time will be spent adding new customers and staff members. Therefore, Staff members can help other customers.

**The shortcomings of this objective in the prototype would be:**

* Staff members may need to be trained as they may not have much technological experience. As a result, may spend longer trying to log in to potentially change customer information. Therefore, it may cause customers to get angry and possibly create a bad brand image.
* Customers may struggle to remember usernames and passwords for themselves. This may be because of a lack of technological experience. As a result, spend more time creating an account. Therefore, they may need staff to guide customers.
* Foreign customers may not know to read or speak English. This is because of the place they may have lived before; they never got the chance to learn English. As a result, they may not know how to sign in. Therefore, they may need staff to guide customers.
* **Staff and Customers should be able to select rooms.**

**How it works:**

For this objective I will need only need 1 form (1 for the customer), when my project is running it should look like this:

A screenshot of a computer

Description automatically generated

To book a room you will need to read the room you want in the data grid view, afterwards, the customer will select the room number you want and the rest of the details.

A screenshot of a computer

Description automatically generated

When you are done inputting the details, you should press the “Add” button to make the booking. The “Add” button will also redirect you to your bookings page where you can see all the bookings that one person made.

A screenshot of a computer screen

Description automatically generated

To view the booking, one should just click on the booking number to display the details.

(for example, booking number 60 below)

A screenshot of a computer screen

Description automatically generated

**The good features of this objective in the prototype would be:**

* The solution has achieved the function mentioned above in the objective; the ability to make a booking.
* New customers and staff members can make a booking without the need to go to the database. As a result, less time will be spent adding new customers and staff members. Therefore, Staff members can help other customers.

**The shortcomings of this objective in the prototype would be:**

* Staff members may need to be trained as they may not have much technological experience. As a result, may spend longer trying to log in to potentially change customer information. Therefore, it may cause customers to get angry and possibly create a bad brand image.
* Foreign customers may not know to read or speak English. This is because of the place they may have lived before; they never got the chance to learn English. As a result, they may not know how to sign in. Therefore, they may need staff to guide customers.
* **Customers & Staff members should be able to log out.**

**How it works:**

For this objective I will need only need 2 different forms (1 for staff and 1 for customers), when my project is running it should look like this:

**Customers log out:**

A screenshot of a computer

Description automatically generated

Once the customer has logged in there will be a “log Out” button on the top right of the screen. The customer must simply just press the button to log out.

**Staff log out:**

A screenshot of a computer

Description automatically generated

Once the staff member has logged in there will be a “log Out” button on the top right of the screen. The staff member must simply just press the button to log out.

for both the customer and staff members, when the “Log Out” button is pressed it will redirect them to the log-in screen (form).

A screenshot of a computer screen

Description automatically generated

**The good features of this objective in the prototype would be:**

* The solution has achieved the function mentioned above in the objective; the ability to Log out.
* Staff members won’t have to work as hard. This Is because there is an option already available for customers. As a result, fewer people will need to contact staff members to log out. Therefore, staff will be more motivated as they will not have to teach customers to log out.

**The shortcomings of this objective in the prototype would be:**

* Staff members may need to be trained as they may not have much technological experience. As a result, may spend longer trying to log in to potentially change customer information. Therefore, it may cause customers to get angry and possibly create a bad brand image.
* Foreign customers may not know to read or speak English. This is because of the place they may have lived before; they never got the chance to learn English. As a result, they may not know how to log out. Therefore, they may need staff to guide customers.
* **Should authorize staff members to make changes to rooms.**

**How it works:**

For this objective I will need only need 1 form (1 for staff), when my project is running it should look like this:

A screenshot of a computer

Description automatically generated

To edit the room, the staff member should press on the side of the datagridview (where there is a red star below). It should display all the details of the room

A screenshot of a computer

Description automatically generated

There are many different options for rooms already set.

A screenshot of a computer

Description automatically generated

Once done adjusting the room, the staff member should press the “update” button to make the changes.

A screenshot of a computer

Description automatically generated

After restarting the program you can see that the changes were successfully changed:

A screenshot of a computer

Description automatically generated

**The good features of this objective in the prototype would be:**

* The solution has achieved the function mentioned above in the objective; the ability to make changes to the rooms.
* The hotel won’t have to hesitate to make changes to a room. This is because if there are any changes in the room it is possible to update the room to suit the change. As a result, the hotel could potentially add more room and expand. Therefore, more people can fit in so the hotel can maximize sales.

**The shortcomings of this objective in the prototype would be:**

* Staff members may need to be trained as they may not have much technological experience. As a result, may spend longer trying to log in to potentially change customer information. Therefore, it may cause customers to get angry and possibly create a bad brand image.
* **The project should connect to a database.**

**How it works:**

The project should connect to the database as this will allow to process/edit/add/delete data.

A screenshot of a computer

Description automatically generated

The fact we can search for Hannah Montana proves that the system is connected to a database.

**The good features of this objective in the prototype would be:**

* The solution has achieved the function mentioned above in the objective; the ability to connect to a database.
* New customers and staff members can make a booking without the need to go to the database. As a result, less time will be spent adding new customers and staff members. Therefore, Staff members can help other customers.

**The shortcomings of this objective in the prototype would be:**

* Staff members may need to be trained as they may not have much technological experience. As a result, may spend longer trying to log in to potentially change customer information. Therefore, it may cause customers to get angry and possibly create a bad brand image.
* **The system should be able to work and fully function.**

After mentioning all the above with evidence I’ve completed this objective along the way.

**The good features of this objective in the prototype would be:**

* The solution has achieved the function mentioned above in the objective; the ability to connect to a database.
* It will result in more customers being happy. This is because the customers would have more features to play around with and make the perfect reservation. As a result, it will motivate customers to come back again. Therefore, it will result in a better brand image/ reputation overall.
* it may motivate staff members. This is because if all the functions are working while staff members are working, it will lead to a more relaxing environment as they have everything under control. As a result, staff members will be motivated to come in every day to work. Therefore, make a better culture within the business.

**The shortcomings of this objective in the prototype would be:**

* it will take time to implement. This is because I am an A-level student to make all the features I want and to make it exactly the way I wanted with everything working will take time. Furthermore, I am also taking others to a level. Therefore, I will not have enough time to implement.