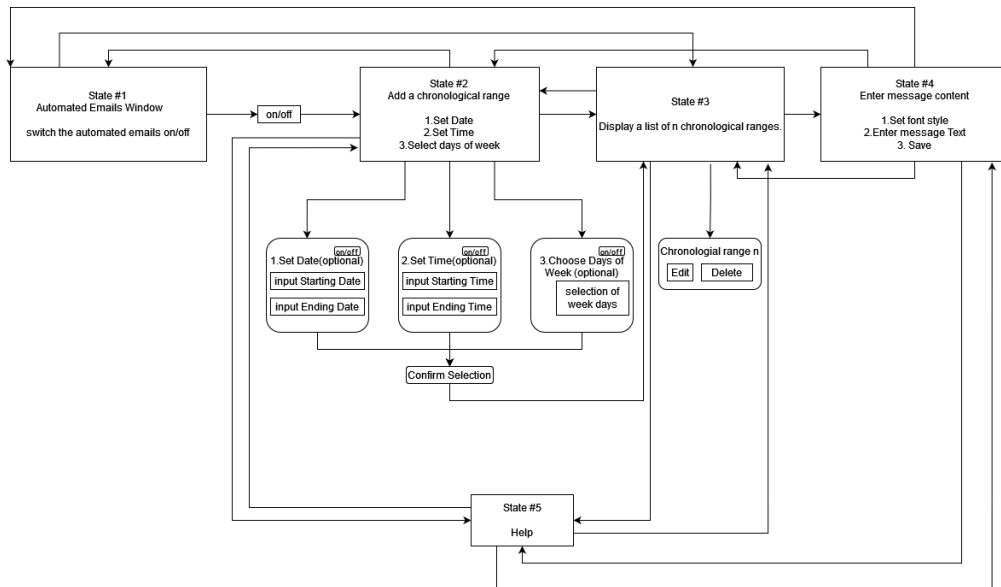# Interface Prototypes

State Transition Network(STN)

Interface designs

State 1: Automated emails window

| ON | OFF | Automatic Replies - SampleEmail@cardiff.ac.uk | ✕ |

List of Ranges (automatic replies will be sent:) ⓘ   **Creator** (add a time range) ⓘ

☐ Set Date:	☐ Set Time:	☐ Select Days of Week:
Start:	Start:	Monday Tuesday
21/06/2024 ⌄	13:30 ⌄	Wednesday Thursday
End:	End:	Friday Saturday Sunday
14/08/2024 ⌄	22:27 ⌄	

Always

Add

| Font Style ⌄ | 10px ⌄ |

B *I* U A ☰ ☰ ☰ ☰   ⓘ

The user is able to switch the automation of emails on and off by using a switch provided.

State 2: Add a chronological range

The user is able to select any combination of dates, times and days of week for email automation by using the section in the top right corner. The user is not obligated to include all options, only the ones that they require eg. If the user wants to send a message during all mondays at all times, they can do that by selecting monday in the "weeks" section and deselecting the "date" and "time" sections. This allows for the user to select any possible combination of chronological periods that they desire. Once the "Add" button is pressed, the configurations are sent to the dashboard (list of ranges) on the left.

State 3: Display a list of chronological ranges (I'd rather rename it as the dashboard, but it's too late for that now)

The user is able to "stack" a variety of different combinations of chronological ranges. They are also able to edit and remove the ones that have already been added.

State 4: Enter message content

The user is able to format the text in any way that they like. The design for the text formatting subsection is practically identical to the one in the actual Microsoft Outlook "email automation" function.

The user is able to enter the text. Whenever the text is changed and only when the text is changed, does the save button appear which disappears when clicked. The way to exit the email automation is by clicking the cross in the top right corner, but if there are unsaved changes, it would display a warning.

State 5: Help
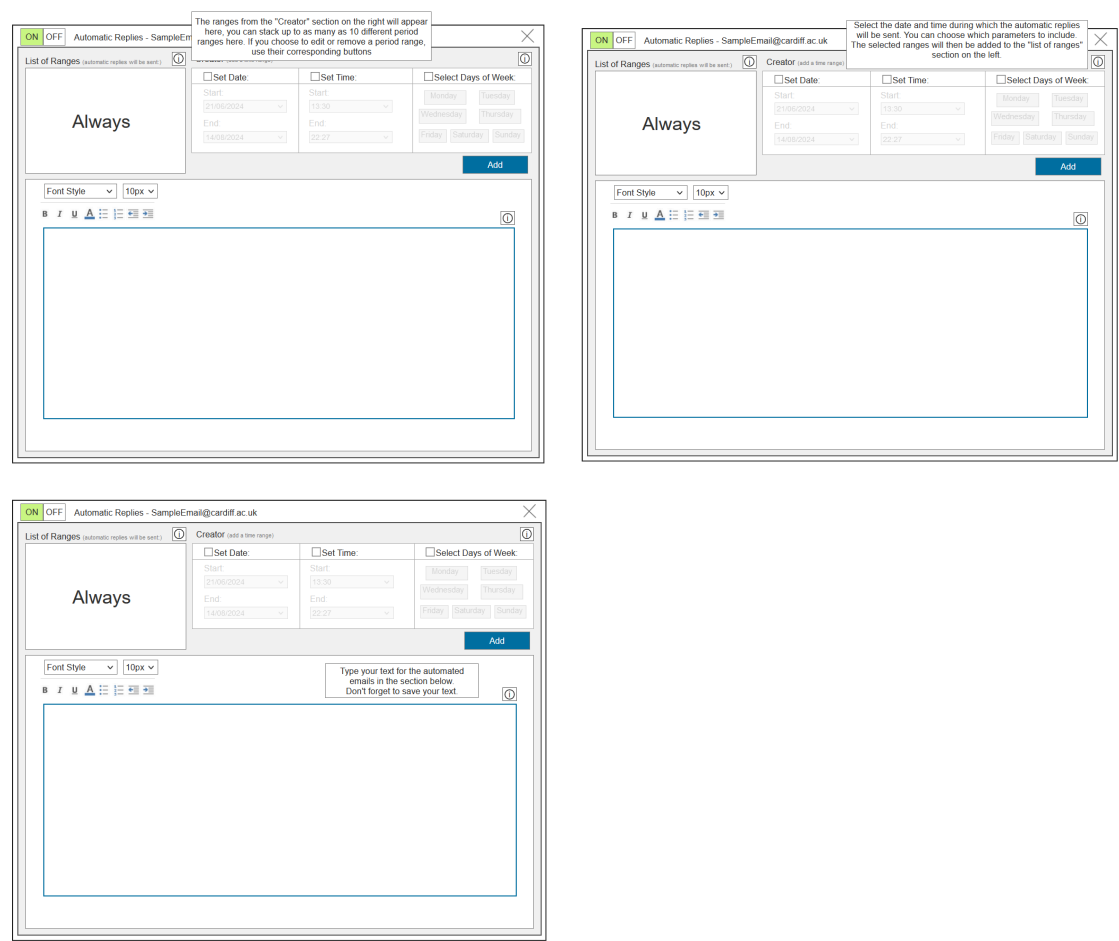
Every section has a "help" button above it on the right. When hovered over, a text window appears which guides the user on what each component is and how to use them.

Justification for Design Choices

0. Overview

When examining the existing design for the email automation by Microsoft, I've noticed that most of the functionalities are done very well. However, one problem with the existing design is that it's possible for the user to be overwhelmed by the amount of writing. Every piece of information looks pretty much identical to other bits, which can lead to confusion. Therefore, first off, I've decided to remove as much unnecessary information as I possibly could. To do that, I've stripped the original design of labels that may say things that are intuitive or lowered their focus by using less eye-catching font styling. Another thing that I did was hide the explanation for those components unless the user would require it by adding "i" help icons which are more explained in section 5. Those design choices would, in my opinion, make the interface more user-friendly, since the user would be able to locate the main components easily. I also decided to use more colours and more unique design patterns to make every single part of the design stand out from the others. This would also contribute to making the design more user-friendly.

The more detailed justification for the design choices that I have made for the date ranges of the Automatic Replies will be in sections 2 and 3 of this report. However, to give a brief overview, the main idea of my design choices was to give the user as much control over time ranges for the automatic replies, as absolutely possible. My design, I believe, enables the user to do so. The general idea for the concept of the design is that the user would be able to stack numerous time periods up.

State 1: Automated Emails Window

The top part of the window (referred to as the automated emails window) is a part of the design that is responsible for defining whether the automated emails are on or off as well as gives the user the ability to close the automated trades window. For that part I have kept what the Microsoft team has done, but have decided to change the appearance of the "do not send automatic emails" / "send automatic emails" radio buttons. I believe that they do indicate whether the emails will be sent or not well enough and show too much text that could overwhelm the user. That's why I have decided to change it into an "on/off" button that uses a green/red colour scheme. When toggled off, the button makes everything dark as well as disables everything. This way, the user knows for sure whether the emails will be sent, or not. That was the only amendment that I have done, the other design choices that the Microsoft team has made for the top section of the window satisfy me completely.

States 2 and 3. Set time period: a brief overview

The states 2 and 3 are the states that are responsible particularly for setting the time period during which the system would send the user's automated emails. The specification of the assignment clearly states that "The system should allow the user to create different auto replies for different date/time criteria. For example, set one auto reply to occur on Saturdays and Sundays between date 1 and date 2, and set another auto reply to occur on weekday evenings between date 1 and date 2, etc.", which to me clearly indicates that the user is to have as much control over the time ranges as possible. The idea that I have gone for in my designs was to make a list of ranges to which the user is able to add their own combination of date, time and days of week ranges. Whenever the user would select their chronological range, it would be added to the "List Of Ranges" section where the user would be able to see when exactly the emails will be sent as well as edit and delete existing automation time ranges.

I also considered the fact that the user may only want to select a few time parameters eg. only select the week and the time or select only a date etc. The possibilities with what exactly the user would want to do are endless, so it was within my responsibility to make a design that has as much functionality as possible which is as simple to use as possible. Therefore, the "Creator" section on the right allows the user to only include the time parameters that they desire.

State 2. Add a time range: detailed justification

To give a more detailed justification of the "Creator", or the "Add a time range" section, I'd start from the top. One thing that I didn't particularly like in the original Microsoft design is that the names for everything are too long and the user can get confused by the huge amounts of same-looking text. That's why I gave it a one-word name and added a tiny explanation for what the section is in smaller grey text. The explanation is still there, but now it doesn't confuse the user as much, since the user would (in theory) only notice it when they would look at the section itself. The section also has a "help" component which displays the breakdown of what the section is meant for and how to use it. This gives the user the ability to see all the information that they may require, but only when they require it.

The actual section where you set the time ranges is a 2-row and 3-column table where the user gets to select which parameters to set and which ones to ignore. The top rows show the title and checkbox which defines whether the parameters for that column are ignored. If it's ignored, then the bottom row becomes dark and ignores any user interactions. This gives the user a clear indication of which parameters are active and which ones aren't. The date and time setting functionality is done in a very similar manner as in Microsoft Outlook, but the days of week selection is done slightly differently. The design consists of a set of buttons that can be toggled on or off. Each button stands for its corresponding day of week and whenever it's toggled on, it lights up with blue. This feels like a very natural way to select days of week.
The blue "Add" button on the bottom right then adds the configuration to the "list of ranges" section. It then resets the state of the "Creator" section.

State 3: List of Ranges (detailed justification)

The name and the "help" button for the list of ranges section have the same justification, as state 2 does. Therefore, there is no need for me to repeat myself on these. What the section is particularly responsible for is to display what time ranges are being used and to give the user the ability to edit or delete them. When there are no time ranges, the section displays the fact that the automated emails will always be sent out. Whenever a new time range is added, it is placed right below the previous one and has 2 options on it: edit and delete. If the user presses the "edit" button, the "Creator" section on the right would turn into the "Editor" section and would stay that way until the user confirms the selection. The user would also be able to cancel the changes in the "editor" section. The "List of Ranges" section would have a limit to how many ranges can be present at the same time. I'm not sure what exactly the limit would be, but I'd speculate that around 5 should do it.

State 4: Message Content

The way that the message entry section has been done by Microsoft in my opinion is absolutely exceptional. It gives the user just about enough control over everything related to message entry without overwhelming them. There, however, has been 3 amendments that I have done. The first amendment is that I have removed the ability to switch between the "Inside my Organisation" and "Outside my Organisation" options, since the coursework specification has clearly stated that I am able to do so. The second amendment is that I find a text box in the "Automated emails" section to be self explanatory and thus I have removed the annotation text to make the interface less boring. And in case it's not self-explanatory enough, a "help" button is in the top right corner that can give all the information required to the users that actually need it.

Last, but not least, the "rules", "ok" and "cancel" buttons on the bottom seem like too many options for a user. The "rules" button in particular seemed useless, as I have already made numerous "help" buttons that give the user an overview of everything. Therefore, I removed that one. When I looked at the "ok" button in the original design, the question that was in my mind was "ok what?". It uses very ambiguous phrasing and doesn't tell the user what exactly it does and I decided to replace it with the "save" button that would only appear when the content of the textarea would change (when the user types something) and would disappear whenever it's clicked. That way, it does 2 things at once:

1. Prevents the user from accessing the "save" button when that button has no use, making the interface more simple.
2. Draws the user's attention to the importance of saving the document. That is so because, theoretically, I had the following scenario in my mind: the user starts typing, a button pops out of nowhere and the user automatically instinctually looks at it and acknowledges that they have the option to save the document.

I also removed the "cancel" button. One could argue that the "ok" and "cancel" buttons are crucial to give the user the ability to exit the window, but my counter argument would be that that functionality is already implemented in State 1 by the "exit" button. And if the user likes to cancel the unsaved changes, they just press "exit" and when a warning about unsaved changes pops up, they just cancel their changes there.

State 5: Help

The "help" buttons functionality is already explained, I have no further comments.

Overall, the new design strips the original design off excess information while also giving the user more functionality. The user is able to accomplish more by putting in less effort, which in my opinion constitutes a successful redesign.