

4 Prototype

4.1 Justify the areas of the problem to be included in the prototype system.

The new RSPBANI application has many key areas that I have been asked to development, which are as followed:

- Band management
- Admin management
- Judge management
- Booking transport (email)
- Competitions
- Results

The aim of my prototype is to give the association a quick initial feel for the solution I will be developing. My prototype will give me flexibility in my design, as I am able to react to the customers opinions and reflect my solution to the requirements of the customer. This will allow me change how I will continue to develop my solution if needs be.

From my investigation phase, it was clear to me that there would be no point in implementing the Competitions and Results functionality until I had got the basic functionality of the band, admin and judge management sections. If I were to make the competition area first, I would not be able to enter any bands for any of the competitions which therefore also makes the implementation of the results unnecessary. I would not be able to test this feature as I went along as there would be no bands to test it with. For this reason, I decided to begin with the management side of the system. I have created all basic functionality around the creation of all users (bands, judges and admins) and allowed them to log into the system which brings additional functionality that depends on their access rights attached to their account.

I have developed most of the features that are available to bands once they log in. I have decided to not develop the transfer member feature has this requires the same skills as other features implemented and is not integral to the main objectives of the system.

I have decided to show how the admin is able to override the band functionality with one of the features available to each of the bands - if there is ever an issue and a band cannot do it themselves for whatever reason. I have been able to do this by adding another screen that asks the admin to select the band they wish to edit the details for before being shown exactly the same screen the band would have seen if they were logged in.

In my prototype, I have implemented the ability for admins to be able to register more accounts. I have created three simple forms with the required fields that I was given during my document analysis part of the investigation. Alongside this I have started to develop the functionality for entering competitions. An Admin is able to create a competition, after which bands can then enter it, once they log on. The admin then has the ability to make the draw for the competition and the judge can enter their results during the competition. They must go through a selection of list boxes so that they enter their result about the correct band and section of the band. This is however not fully developed but I have started it to show where I am going with it.

I have not implemented any validation into the prototype as it would make the quick development very tedious and is not necessary as it doesn't affect the functionality, this however means my prototype is not robust, but this robustness will come in the software development once I have all the functionality implemented and working correctly.

I wanted to design the UI in my prototype completely as I felt this was key to ensuring the client was happy with the prototype and overall appearance of their solution. I have kept my UI design consistent between screens, as this is required in industry level solutions for a successful solution which the client is happy with.

4.2 Produce a range of screens and outputs for the prototype solution.

4.3 Create a functioning system that carries out all chosen processes.

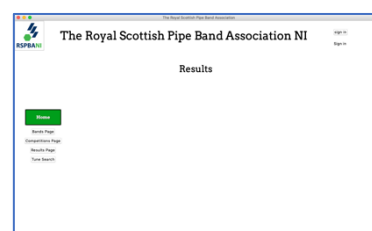
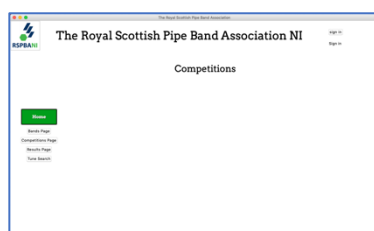
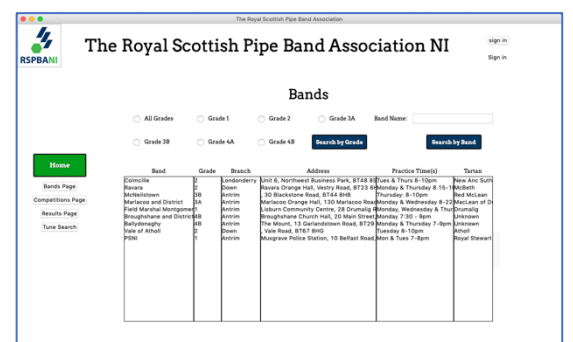
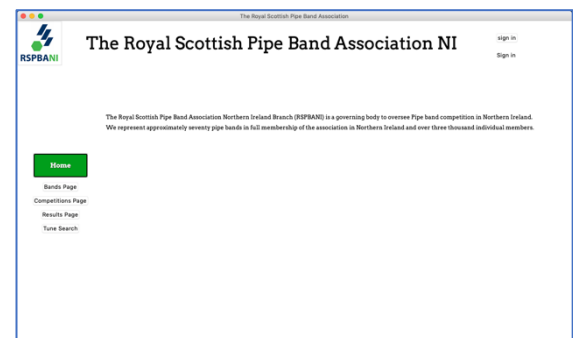
4.4 Use realistic data for output and storage.


Guest View

This is the Home Page screen – currently it looks quite bare. I have implemented the design of one of the buttons which I will use for the rest but of which I have not designed yet. I have not been able to include the photo gallery in the prototype because I do not have the necessary skills and is not a main feature which is required by the client and is not vital to the success of the project. As I complete the rest of my coursework, I will be continually researching possible methods to my solution, so I can implement it the way the customer requires. Again, I have not will not implemented the “Latest Results” section because I have not developed the Results functionality in enough depth to successfully process this function with all the required data. I will have to pull the winning Band for each grade from the latest competition to display it on the home Screen.

The Bands page to the left shows all the Bands that are registered to the system. I have not implemented the filtering options as I unsure on how I will implement this yet and it will require a bit of research to find the most efficient way.

For my prototype, I haven't started the functionality on the competitions or the results pages as these can only be completed once the processes relating to them are fully developed.





The Royal Scottish Pipe Band Association NI

[Sign in](#)
[Sign in](#)

Login

Home

[Bands Page](#)

[Competitions Page](#)


[Results Page](#)

[Tune Search](#)

Username

Password

Login



The Royal Scottish Pipe Band Association NI

[sign in](#)
[sign in](#)

Login

Home

[Bands Page](#)
[Competitions Page](#)
[Results Page](#)
[Tune Search](#)

Username:

Password:

[Login](#)

New Database

Open Database

Write Changes

Insert Changes

Database Structure

Browse Data

Edit Diagrams

Execute SQL

Table: BandAccount

New Record


Delete Record

BandID	BandName	landBranch	ndiv	MinStash	WScounthar	ndivName	BandAddressLine1	ndivAddressLine1	BandCounty	ndivPostcode	PracTime	Tarzan	Username	Password	Err
1	PSM	Arcton	1	Cherry	Bathone	Maugree P.	11 Bellair Road	Belfast	County Antrim	B71 1AA	Mon & Tues	Royal Court	PSM	psm@btinternet	1
2	Val of Aghal	Down	2	Jonny	Fleming		Val Road	VAN7 Town	County Down	B727 8Q4	Tuesday 8	Aghal	band	val@btinternet	1
3	Ballydonagh	Arcton	48	Alastair	McCleery	The Mount	13 Gardanow...	Council	County Antrim	B723 8Q4	Monday & T...	Unknown	ballydonagh	th@btinternet	1
4	Broughanham...	Arcton	48	Davy	Red	Broughanham...	21 Main Street	Broughanham...	County Antrim	B740 79G	Monday 7.3...	Unknown	broughanham	ba@btinternet	1
5	Malcolm and D...	Arcton	3A	Wayne	Byrne	Malcolm Str...	130 Marlboro R...	Portlansdown	County Antrim	B752 37B	Monday & T...	Malcolm of ...	Wayne Byrne	byrne_wayne@bt	1
6	McNicolson	Arcton	38	Rubie	Bellington	30 Blackstone R...	30 Blackstone R...	Portlansdown	County Antrim	B744 8WB	Thursday 8...	Red McLean	Nicolson@bt	btinternet@McN...	1
7	McNicolson	Down	2	Alastair	Dunne	Ravens Glen...	Vinity Road	Ballygonn...	County Down	B723 6Q1	Monday & T...	McNicol	Alastair@D...	PSM@btinternet	1
8	Ravens	Down	2	Mark	Hessan Jay	Unit 6	Northwest Busi...	Strangis Ind...	County Lond...	B748 8SE	Tues & Wed...	New Acc S...	re@btinternet	colmc@bt	1

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A screenshot of the Royal Scottish Pipe Band Association NI website. The header features the RSPBAN logo on the left and the text "The Royal Scottish Pipe Band Association NI" on the right. Below the header is a navigation bar with links: "Enter Competitions", "Bank Transfer", "Register Member", "Transfer Member", and "Edit Member". The main content area has a heading "RSPBAN NI" in a red box, followed by a paragraph describing the association's purpose: "The Royal Scottish Pipe Band Association Northern Ireland Branch (RSPBAN NI) is a governing body to oversee Pipe band competitions in Northern Ireland. We represent approximately seventy pipe bands in full membership of the association in Northern Ireland and over three thousand individual members." On the left side, there is a sidebar with a "Home" button in a red box, and links for "Member Page", "Competitions Page", "Results Page", and "Tune Search". On the right side, there are links for "Sign in" and "Sign up".



The Royal Scottish Pipe Band Association NI

[Home](#)
[Enter Competitions](#)
[Bank Transpass](#)
[Register Member](#)
[Transfer Member](#)
[Edit Member](#)

[Page 1/1](#)
[Sign out](#)

The Royal Scottish Pipe Band Association (RSPBN) is a governing body to oversee Pipe band competitions in Northern Ireland. We represent approximately seventy pipe bands in full membership of the association in Northern Ireland and over three thousand individual members.

[Home](#)

[Results Page](#)
[Competitions Page](#)
[Results Page](#)
[Home Search](#)


[Competitions](#)

Admin Logged in

Band Features

Edit Band Details:

This feature allows the person logged into the band account to edit the information stored about them. The information that is currently stored about them is populated in the entry fields which allows the user to easily make the change. The message shown below will be presented to the user if the updated information is successfully stored in the database.


The Royal Scottish Pipe Band Association NI

[Edit Band Details](#)
[Enter Competitions](#)
[Book Transport](#)
[Register Member](#)
[Transfer Member](#)
[Edit Member](#)

Edit Band Details


[Home](#)

[Band Page](#)
[Competitions Page](#)
[Results Page](#)
[Tune Search](#)

Band Name	Value of Asset	First Name	Jimmy
Branch	Down	Second Name	Panning
Grade	2	Email Address	xxxx@gmail.com
Address			
Hall Name		Username	XXXXXXXXXX
Line 1	Value Read	Password	
Line 2	Write/Save		
County	Country Down		
Postcode	BT6 6AA		
Prison(Town)	Tuesday 6:10pm		
Turban	Attest		

Update Band


This is an example of changing the name of the band Vale of Athol to Vale and a screenshot of the database before and after the commit.



The Royal Scottish Pipe Band Association NI

[Sign out](#)
[Sign out](#)

[Edit Band Details](#)
[Enter Competitions](#)



Account updated successfully

My Member

[Home](#)

[Bands Page](#)
[Competitions Page](#)
[Results Page](#)
[Tune Search](#)

Band Name

Down

Branch

Down

Grade

Down

Address

Full Name

Line 1

Line 2

County

Down

Postcode

Phone (Toll-free)

Telnet

First Name

Second Name

Email Address

Username

Password

[New Database](#)
[Open Database](#)
[Write Changes](#)
[Import Changes](#)

Database Structure
[Browse Data](#)
[Edit Programs](#)
[Execute SQL](#)

Table: **BandAccount**

New Record
Delete Record

	BandID	BandName	bandInflu	inflDesc	MFInstment	MFInstrument	MFName	BandInstment	inflDesc	bandCountry	bandCountry	bandInflu	inflDesc	PracticeTime	Tarjan	Username	Password	Env
			Zone		Zone			Zone		Zone		Zone		Zone				
1	2	Van of the Week	Armenia	1	Clonmagy	Dalhousie	Magnum-9	10 Belfast Road	Belfast	County Antrim	BT1 1AA	Van & Tans	Royal Victoria	PSM		patrick@mcnet.ie	psm99	env
2	1	Armenia	Armenia	1	Armenia					County Antrim	BT12 8JL	Armenia						env
3	4	Armenia	48	Armenia	McClary	The Mount	13 Sandhills	County	County Antrim	BT19 8JL	Wendy & J.	Unknown	McClary					env
4	5	Broughshane	48	Deary	Broughshane	20 Main Street	Broughshane	County Antrim	BT40 7JG	Wendy J.S.	Unknown	Broughshane	test					env
5	6	Fish Market Har.	Armenia	1	Parkas	Lisburn Court	28 Drumming Road	Lisburn	County Antrim	BT28 76G	Wendy, Mrs.	Drumming	quest111					env
6	7	Harpens and St.	Armenia	38A	Harpens	Marquess Close	133 Harland St.	Parklands	County Antrim	BT12 7JG	Wendy & J.	Harpens	Syria, Wagonette					env
7	8	Halkidiki	Armenia	28	Bellagum	Bellagum	20 Blackheath St.	Parglennas	County Antrim	BT14 8GS	Phenella & R.	Red Lakes	NevelmanGS					env
8	9	Ravens	Down	2	Albairi	Ravens	Queens Road	Vevey Road	County Down	BT23 9JL	Wendy & T.	McDorch	AlbairiGS					env
9	10	Cornwall	Londun	2	Mark	Nelson Jnr	Unit 6	Northwest Coast	County Londun	BT48 8JG	Tina & Yau	New Acc S.	relnelson					env

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[New Database](#)
[Open Database](#)
[Write Changes](#)
[Recent Changes](#)

Database Structure
[Browse Data](#)
[Edit Primitives](#)
[Execute SQL](#)

Table: **BankAccount**

New Record

Delete Record


RowID	BankName	bankbranch	acFirm	acFirmName	acFirmAddress	acFirmAddressLn	BankAccount	bankPhoneNo	branchPhoneNo	TaxRate	UserName	Password	Email		
1	First Bank	Atlanta	1	Chrysler	Dalhousie	Wayneville Pk.	12 Bedford Road	Bedford	County Atlanta	877-1144	Wm T. Rags	Rags Smart	FDN	phd@cs.cmu.edu	cmu.edu
2	First Bank	Atlanta	1	Chrysler	McClary	The West	13 Sandhills	Atlanta	County Atlanta	877-6100	Henry S. L.	Unknown	Selfish	selfish@cs.cmu.edu	cmu.edu
3	Bringhamton Inc.	Atlanta	48	Deer	Brougham	20 Main Street	Broughamton	County Atlanta	874-7675	Henry S. L.	Unknown	Bringhamton	test	brn@cs.cmu.edu	cmu.edu
4	Ford Motor Inc.	Atlanta	1	Richard	Lockum Court	28 Dunwoody Road	Lakota	County Atlanta	872-1795	Wendy Ws.	Dunwoody	Selfish11	Selfish	selfish@cs.cmu.edu	cmu.edu
5	Wells Fargo Bank	Atlanta	134	Wayne	Norva	135 Norva Lane	Porterdale	County Georgia	871-2170	Henry S.	McClary Jr.	Henry	Henry	Henry@cs.cmu.edu	cmu.edu
6	McKinnison Bank	Atlanta	2	Belmont	Belldragon	30 Beckwith Lane	Portagen	County Georgia	874-8108	Thompson S.	Red Hills	McKinnison	Selfish@cs.cmu.edu	Selfish	selfish@cs.cmu.edu
7	Bank of America	Dawn	2	Alkazar	Duma	Revere Drive	Vevey Road	County Dawn	8723-600	Wendy S. L.	Malibu	Alkazar01	Selfish12	Selfish	selfish@cs.cmu.edu
8	Credit One	London	2	Mark	Nelson Jr	Levi St	Norwood Road	George Hill	County London	8714-300	Tam S. T.	New Am S.	Selfish02	cmu.edu	cmu.edu

[1](#)
[2](#)
[3](#)
[4](#)
[5](#)
[6](#)
[7](#)
[8](#)
[9](#)
[10](#)

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Enter competitions:

Once an admin creates a competition it will be displayed in this list. Each band is then able to select all the competitions it wishes to enter.



sign out

sign out

The Royal Scottish Pipe Band Association

The Royal Scottish Pipe Band Association NI

edit Band Details

Enter Competitions

Book Transport

Register Member

Transfer Member

Edit Member

Home

Search Page

Competitions Page

Results Page

Tune Search

Enter Competitions

Please select all the competitions you would like to enter

Examination of Championships
Ex. Adults
Junior Championships

Select Competitions()

[New Database](#)
[Open Database](#)
[Refresh Changes](#)
[Refresh Changes](#)

Database Structure
[Refresh Data](#)
[Edit Pragma](#)
[Execute SQL](#)

Table
[Refresh/Reload](#)
[Refresh](#)
[Refresh](#)

New Record
Delete Record

EmpID	Age	Gender	Compensation	Department	Grade
1	3	2	03/01/2019	2	
2	4	2	03/01/2019	2	40
3	8	10	03/01/2019	2	
4	9	2	03/01/2019	2	
5	10	2	03/01/2019	2	
6	11	3	04/01/2019	2	
7	12	1	04/01/2019	2	40
8	13	3	04/01/2019	2	
9	14	3	05/01/2019	2	
10	15	3	05/01/2019	2	1
11	16	1	05/01/2019	2	

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Go to 1

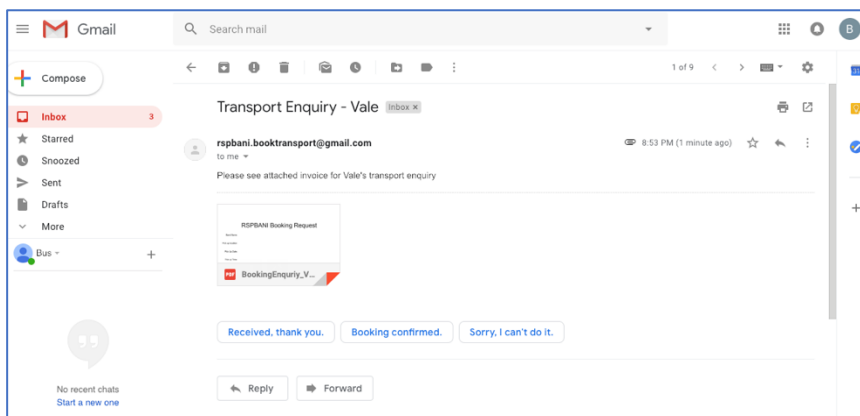
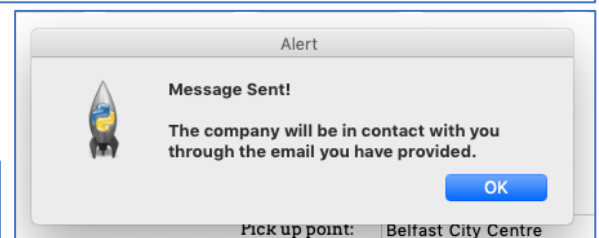
Book transport:

The form on the right is how the band user will be able to enquire about booking transport to and or from a competition.

They must enter all the necessary details about the trip and the party.

When they click submit an email is sent from RSPBANI to the bus company as seen in the email below with a pdf attached with the band's enquiry. It will contain all the fields from the booking form and also the Pipe Majors name and his email address so that the bus company can get directly in touch with the Band to confirm or get more information from them before they can confirm the booking.

The screenshot shows the 'Book Transport' form on the RSPBANI website. The form includes fields for 'Pick up point' (Belfast City Centre), 'Pick up time' (12 pm), 'Destination' (Glasgow Green), 'Return Date' (July 2018), 'Party Size' (40), and 'Number of Instruments' (20). A 'Submit' button is at the bottom right. The website header includes the RSPBANI logo and navigation links like 'Home', 'Bands Page', 'Competitions Page', 'Results Page', and 'Tune Search'.



I have not been able to find a good module to program the generation of the PDF document. This will come in the systems development.

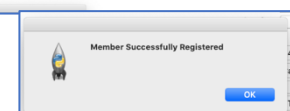
Register member:

This form allows the Pipe Major to register a new member to his band which is logged in.

The Pipe major must fill out the details of the new member and the new user must sign to confirm they wish to be registered and they allow the information to be stored about them.

The database is evidence that the new band member has been registered and their information has been stored. They are given their own identification number and they bands details to which they are registered are also stored in the same table.

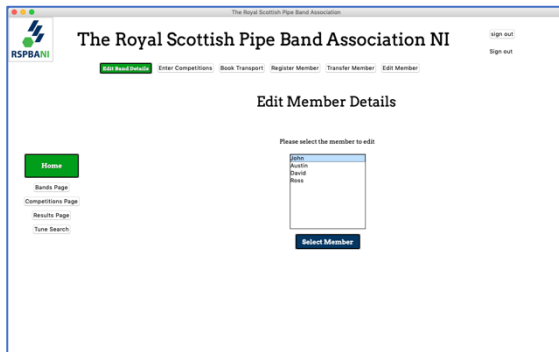
The screenshot shows the 'Member Registration' form on the RSPBANI website. The form includes fields for 'First Name', 'Surname', 'Address', 'Postcode', 'Date of Birth', and 'Member's Signature'. There are also radio buttons for 'New Member' and 'Transfer Member'. A 'Register Member' button is at the bottom right.



The screenshot shows a database table with columns: 'id', 'band', 'bandid', 'bandname', 'grade', 'sex', 'surname', 'first_name', 'address', 'postcode', 'county', 'country'. The table contains 10 rows of data, including details for various bands and their members.

Edit member:

This feature then allows the Pipe Major to edit the details of his pipe band. He must select the member he intends to edit before he is brought to a form with their current details, similar to the editing of the band's details, where he can update their personal information. But again, the member must sign to confirm that they know their details have been updated.



The Royal Scottish Pipe Band Association NI

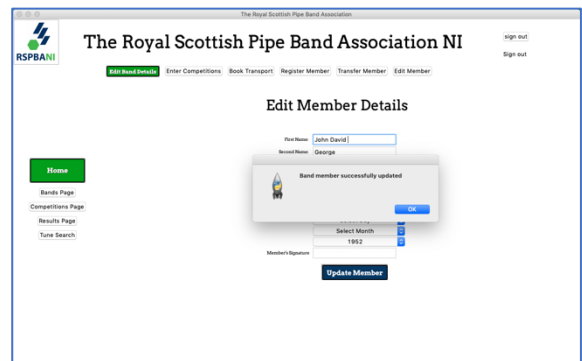
Home Edit Band Details Enter Competitions Book Transport Register Member Transfer Member Edit Member Sign out

Edit Member Details

Please select the member to edit:

- John David George
- John David George
- John David George

Select Member



The Royal Scottish Pipe Band Association NI

Home Edit Band Details Enter Competitions Book Transport Register Member Transfer Member Edit Member Sign out

Edit Member Details

First Name: John David Second Name: George

Band member successfully updated

Select Month: 1992

Member's Signature: [Signature]

Update Member

As you can see from the previous example where I register "John George", I have now updated his name to "John David George" which have been saved to the database shown on the right.

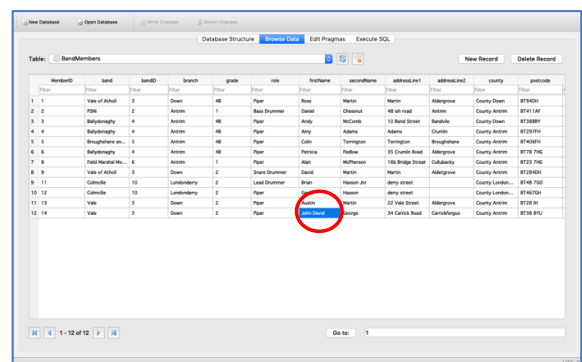


Table: BandMembers

MemberID	band	bandID	branch	grade	role	firstName	secondName	addressLine1	addressLine2	county	postcode
1	Valley of Ashes	1	Down	4B	Piper	Ross	Marin	Marin	Adelgrove	County Down	BT54DN
2	PSM	2	Armagh	1	Snare Drummer	David	Chenault	48 Ash Road	Armagh	County Armagh	BT41 1AF
3	Ballyhenaghy	4	Armagh	4B	Piper	Andy	McNelis	10 Band Street	Bankside	County Down	BT58BB
4	Ballyhenaghy	4	Armagh	4B	Piper	Andy	Adams	Adams	Chaville	County Armagh	BT58BB
5	Ballyhenaghy	4	Armagh	4B	Piper	Andy	Adams	Adams	Chaville	County Armagh	BT58BB
6	Ballyhenaghy	4	Armagh	4B	Piper	Andy	Adams	Adams	Chaville	County Armagh	BT58BB
7	PSM	2	Armagh	1	Snare Drummer	David	Chenault	48 Ash Road	Armagh	County Armagh	BT41 1AF
8	Valley of Ashes	1	Down	4B	Piper	Ross	Marin	Marin	Adelgrove	County Down	BT54DN
9	Valley of Ashes	1	Down	4B	Piper	Ross	Marin	Marin	Adelgrove	County Down	BT54DN
10	Valley of Ashes	1	Down	4B	Piper	Ross	Marin	Marin	Adelgrove	County Down	BT54DN
11	Valley of Ashes	1	Down	4B	Piper	Ross	Marin	Marin	Adelgrove	County Down	BT54DN
12	Valley of Ashes	1	Down	4B	Piper	Ross	Marin	Marin	Adelgrove	County Down	BT54DN
13	Valley of Ashes	1	Down	4B	Piper	Ross	Marin	Marin	Adelgrove	County Down	BT54DN
14	Valley of Ashes	1	Down	4B	Piper	Ross	Marin	Marin	Adelgrove	County Down	BT54DN

Admin Features

Registering new user accounts:

Only admins will have the ability to create new user accounts. They must fill in the form for the type of user they wish to create and their username and password. I haven't yet created the ability for when the user logs on for the first time, they will be asked to set their own password – this will come in the development.

The three screenshots show the 'New Judge Registration', 'New Band Registration', and 'New Admin Registration' forms. Each form includes fields for personal details, contact information, and a password. The 'New Band Registration' form also includes fields for band details like Band Name, Branch, and Grade. The 'New Admin Registration' form includes fields for admin-specific details like Title and Position.

Creating a new competition:

Admins must have the ability to create competitions, this at the minute only has very basic functionality, which will be built upon. Once they create the competition, this will allow bands to enter it, as seen in the “Entering Competitions” in the band features section above.

The left screenshot shows the 'Create Competition' form with fields for Competition Name, Date, and Location. The right screenshot shows a database browser for the 'Competitions' table, which contains the following data:

CompetitionID	CompetitionName	CompetitionLocation	CompetitionDate	N
1	Ulster Championships	Antrim Castle Gardens	5/July/2018	0
2	Co. Antrim	Glenarm	3/June/2018	0
3	Champion of Champ...	Portrush Tennis Courts	11/August/2018	0
4	All Ireland Champi...	Stormont Grounds	12/June/2018	NULL

Once the Admin creates the competition it is added to the Competitions table, which this example can be seen (highlighted) in the database to the right.

Drawing competition:

Before the competition is scheduled to happen, the admins must draw the competition, this means that the bands will find out when they will be competing on the day and at which circle, they must be at given the provided time.

The first screenshot shows the 'Draw Competition' page. The user has selected the '1-4 August 2018' competition. The second screenshot shows the 'Select Grade' page. The user has selected 'Grade 2' from the dropdown menu. The third screenshot shows the 'Draw Grade 2' page. The user has entered '11:00' for the competing time and '1' for the competing bands.

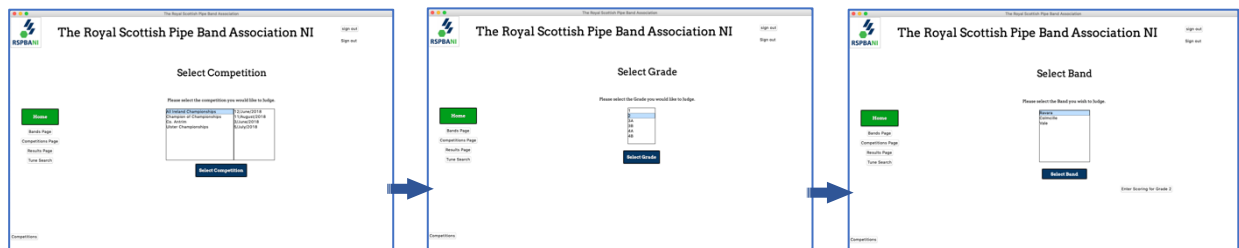
The competitions draw has been updated so that all the bands that have entered the chosen competition and grade in this example (grade 2) have been added with a circle number and a competing time.

	CompetitionID	BandID	EntryID	CircleNumber	CompetingTime
	Filter	Filter	Filter	Filter	Filter
22	12	5	64	6	10:20
23	13	2	65	1	9:00
24	13	6	69	1	9:05
25	13	13	75	1	9:10
26	13	3	66	2	9:20
27	13	9	72	2	9:25
28	13	10	73	2	9:30
29	13	7	70	3	9:35
30	13	8	71	4	9:45
31	13	11	74	4	9:50
32	13	4	67	6	10:00
33	13	5	68	6	10:05
34	15	2	78	1	10:00
35	15	9	75	2	10:20
36	15	3	76	2	10:30
37	15	7	80	3	10:40
38	15	5	79	5	10:50
39	15	4	82	6	11:00
40	4	3	14	3	11:00
41	4	10	15	3	11:05
42	4	9	16	3	11:10

Judge Features

Judging a competition:

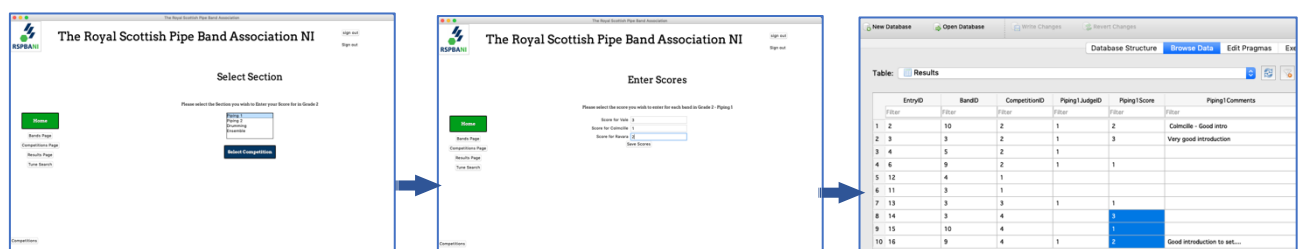
After the competition has been drawn and it's the day of the competition, the bands must be judged and ranked from best to worst. The three screens below show how the judge is able to select the competition, grade and band. On the third screen they have the option to enter their comments about each band's performance in the grade or once all the bands have competed in the grade, they can then rank the bands from best to worst. By pressing the “enter scores for the bands” button.



If the judge selects to write their comments about the bands performance, they will be directed to the next screen where they are asked which section they would like to judge followed then by the comments sheet where they can write and update their comments. When they click save they will be brought back to the “Select Bands” page in in the previous screenshot. The database shown proves that this part of the system is functional.



Once they have commented about each band in the grade, they must select the “Enter scores for the bands” button where they can input their ranks after listening to all the competing bands. Again, the screen shot of the database shows the scores being committed to storage along with the ID of the judge who entered them.



4.5 Evaluate the prototype solution to my objectives and describe shortcomings.

➤ Guest View:

This is the Bands page is the only page I have worked on in the guest view, simply because the guest view is a stand-alone feature available to everyone and most of the pages require information that has to be inputted and processed by the users before it can be displayed.

○ Bands Page:

The information that is being displayed in the page is correct, however I do not like the way I have developed the table using list boxes because if the information to be displayed under each heading is too long to fit in the box it is not shown properly. The way I have done this is not fit for its purpose and audience so I will be finding another way to do this.

➤ Login Feature:

I think my log in function is fit for its intended purpose. I chose to implement it the way I have because of its simplicity. Having multiple log in buttons for different users (bands, admins and judges) is not user friendly as it may be confusing for inexperienced users as they could try and log onto their account through the log in which is avoidable.

➤ Admin Features:

I am pleased with the layout of the buttons for the admin features. However, it would be impossible to distinguish between the images for the creating account feature. I will change these images so that the admin will know exactly which button to press to register for example an admin. I am pleased with the way I have been able to allow the admins to complete the functionality given to the band on behalf of the band. The simple list box before the admin is shown the same forms as the band asking to select the band which the admin wishes to edit is very effective and the best solution to solving the issue

○ Creating a band, admin or judge account:

I think the form for registering a new bands, admins or judges are sufficient as all the required fields are there and is very straight forward and accessible from everywhere once the admin has logged on. This feature functions as it should.

○ Creating competitions:

This feature is good, admins are able to enter competitions however, I think I will need to include another field that is a deadline so that bands know when they must enter by.

○ Drawing Competitions:

When it came to drawing competitions within the prototype, my solution wasn't really meeting the objectives. The order at which the bands were given their competing time was not random and therefore in the prototype it would be very easy to "fix" the competing times of the bands. To improve this feature, I will make the bands appear randomly and will not show the band ID on the screen to admins.

➤ **Band Features:**

○ Editing band details

The form for editing the bands details is sufficient as it meets all objectives and is simple to navigate and is laid out in a way that it's easy to see what you are doing. I like the way I was able to populate the entry fields with the information already stored. This makes it easy for the user to see what is already being stored and makes it easier to see what needs updated. I took this idea from my desk-based research and have been able to fully implement the functionality.

○ Registering a member:

Again, similar to the other forms I have created, I am happy with its layout and the fields I have entered, these should be all I need to include, as I have made reference to the paper-based registration form and included the same data.

○ Booking transport:

The booking transport does not fully function the way I would like it yet. I have been able to send an email to the bus company and be able to lay out the email and attach the enquiry pdf, but I have not been able to get the entered data from the fields and include them in the generated pdf. I am going to find another library within Tkinter that will allow me to design the document to a higher more professional standard. Apart from this it is working and functioning according to the objective.

○ Entering competitions:

Currently this feature is not robust enough to be a good feature. Bands have no way at telling which competitions they have entered, this can mean they can accidentally enter them twice. To solve this, I will only populate the selection box with the competitions that the band have not entered already. Bands also cannot see the date of the competitions they are about to enter so I will add this like in the judge's feature. I will need to create a deadline so that bands know when they have to enter the competitions by. Once the deadline is passed then the band will be removed from the list as they will no longer be able to enter it.

➤ **Judge Features:**

○ Judging of the competitions:

This feature is not perfect by any means, but it does what it is required to do. To make it easier for the judges to use, giving them less chance to make a mistake, I will change the order of the list boxes that the judge has to work their way through until they are presented with the correct comment sheet for the section they are grading.

Because each judge will be judging the same section for each band in a certain grade. I will make the judge select the section they will grade before they select the band, instead of after. This will remove the issue of the judge selecting the wrong section for the band.

I also have the issue where judges are able to select competitions for judging before they have been drawn. I will have to add an additional check to ensure

only competitions that have been drawn are shown to the judges. Currently there is no validation on the scores that the judges enter. I would classify this as the most important process of the whole system. As the bands have to be ranked from best to worst, the valid data that should be entered will change depending on how many bands there are. By this I mean, if there were 7 bands entered into a particular grade. The maximum score that can be given out (to the band that was the worst) is 7. But also, the same score cannot be given to two bands. I will need to develop a method so that the entering of scores is fool proof.

Additional shortcomings and improvements

In addition to all mentioned above, there are a few shortcoming and improvements I will still need to make to ensure the solution is a success and is fit for its purpose. To ease all users using the system I will need to produce better refined instructional text to the user to tell them what to do at each stage of every process.

I will need to implement all of the features in the guest view. These include the photo gallery to be displayed on the home page along with the latest results summary. I need to display a list of all the competitions including all the relevant information. I will need to create a list of all the past competitions and display the full results of all competitions on the results page.

When new users log in for the first time, I will need to implement the feature where the user is asked to change their password.

I will need to validate all of my inputs to ensure that all are logical and as expected.