# Planning Document For Phonebook

You have decided that it would be handy to have your own contact list. All that you

need from a contact list that for each person, you should be able to find his or her

phone number and his or her picture.

You decide that a GUI is necessary, but that a simple one will do.

Your code needs to be able to:

• add a person and their number and picture;

## • get a person’s number and show their picture.

• allow the user to click on a button to add a new contact;

• allow the user to press a key to add a new contact;

• allow the user to click a button/press a key to get a contact’s details – the number

and the image should both be shown;

• allow the user to click a button/press a key to hide the current contact’s details;

• allow the user to click on the image to hide the current contact’s details;

• allow the user to click a button/press a key to see the names and phone numbers

## of all the contacts.

## Plan

### Classes used

| Name | What used for |
| --- | --- |
| gui | The user interface side of things, e.g. buttons and text output |
| contacts |  |
| details |  |
| print | Print function |

### GUI

### Fields

| Name | Access | Type | What used for |
| --- | --- | --- | --- |
| Name | Public | String | Name of contact |
| number | Public | String | Number of contact |
| picture | Public | String | Picture of Contact |

### Constructors

| Name | Access | Information supplied to the constructor |
| --- | --- | --- |
| Gui | Public | Name, Number, Picture |

### Methods

| Name | Access | Information supplied to the method | Information returned from the method | Brief description |
| --- | --- | --- | --- | --- |
| Domouse | Private | X,Y |  | If the graphics pane is clicked it will clear everything |
| doButton | Public | button | Depends on the what the user clicks on | If this button is pressed then do this etc |

### Procedural Structure

Description of the procedural structure goes here

Import ecs

Import java

Import java.io

Import java colour

Make a new class gui

Private contacts the contacts

Public gui

Initanlise

The contacts equals a new contact

Print “press a to do this , b to this, c to do this”

Set the key listeners for each key press

Set a mouse listener

Add button of addcontact

Add button of getdetails

Add button for printall

Add button for clear

Add button for quit

Private do mouse

If clicked in here then clear panes

Public dobutton

If this button has been pressed then do this

Else if this button has been pressed then do this

Else if this button has been pressed do this

Public add contact

What is name

What is number

What is picture

The contacts. Addcontacts(name, picture number)

Print that this contact is now one of your contacts

Public show contact

What is the name

Get the name and run the getnumber method while parseing name through it

Do the same with picture and getpicture

Print the name and number

Draw image from picture and place on x and y

Public printall

For the key In the contacts keyset

Print the key

And print the get numberkey

### Contacts

### Fields

| Name | Access | Type | What used for |
| --- | --- | --- | --- |
| Name | Public | String | Name of contact |
| number | Public | String | Number of contact |
| picture | Public | String | Picture of Contact |
| Contact | Public | String | Contact in key |

### Constructors

| Name | Access | Information supplied to the constructor |
| --- | --- | --- |
| Contacts | Public | Name, Number, Picture, contact |

### Methods

| Name | Access | Information supplied to the method | Information returned from the method | Brief description |
| --- | --- | --- | --- | --- |
| getNumber | Public | Name | The number | Gets the name for ui and then gets the number through the map |
| Add contact | Public | Name, number, picture |  | Puts name and new details in map. Adds the number and picture to map |
| Get picture | Public | Name | The picture | Gets picture using the name |

### Procedural Structure

Description of the procedural structure goes here

Import hashmap

Public class contacts

Public contacts

Contacts equals to hashmap, string details

Public get number (name)

Return the number using the name

Public add contact(name, number. Picture)

Put name, new details

The contacts.get name , add details(number and picture)

Public get picture(name)

Return the picture using the name)

Public print all(contact)

Returns getallNumbers using contact

### Details

### Fields

| Name | Access | Type | What used for |
| --- | --- | --- | --- |
| number | Public | String | Number of contact |
| picture | Public | String | Picture of Contact |

### Constructors

| Name | Access | Information supplied to the constructor |
| --- | --- | --- |
| details | Public | Number, Picture |

### Methods

| Name | Access | Information supplied to the method | Information returned from the method | Brief description |
| --- | --- | --- | --- | --- |
| Getpicture | Public | Contact details, key | Picture | Gets the picture from key |
| Add details | Public | Number, picture |  | Puts number and picture in map |
| Getumber | Public | Contact details key | Number | Gets number from map |
| Getallnumbers | Public | Contact details key | Prints | Prints all numbers in map using key |

### Procedural Structure

Description of the procedural structure goes here

Import hashmap

Public details

Get picture

String picture = 0

For the key in key set

Picture = details(key)

Return picture

Public add details

Put number and picture in details

Get number

String number = 0

For key in keyset

Number = key

Return number

Get all numbers

Prints=print

Int count = 0

For key in key set

Count +1

Return prints

### Print

### Fields

| Name | Access | Type | What used for |
| --- | --- | --- | --- |
| First | Public | String | First string |
| Second | Public | String | Second |

### Constructors

| Name | Access | Information supplied to the constructor |
| --- | --- | --- |
| Print | Public | First, second |

### Methods

| Name | Access | Information supplied to the method | Information returned from the method | Brief description |
| --- | --- | --- | --- | --- |
| Fst | Public |  | First | Returns first string |
| Snd | Public |  | Second | Returns second |

### Procedural Structure

Public string first

Public string second

Public print(first, second

This.first=first

This.second=second

Public string fst

Return fst

Public string snd

Return snd

## Testing

| Input | Expected outcome | Check |
| --- | --- | --- |
| Add button | Name | Name |
| Get details | Name, number and image | Name, number and image if is found |
| Print all | Print all | Prints all |
| Clear | Clears | Clears |
| Quit | Quit | Quit |
| A to add | Name? | Name? |
| S to get details | Name? | Name? |
| P to print | Prints all contacts | Prints all contacts |
| C to clear | Clears all | Clears |
| Press random key | Nothing to happen | Nothing happens |
| Random button press | Nothing | Nothing |
| Press in the graphics pane | Clears | clears |
|  |  |  |

Testing with Images

|  |  |  |
| --- | --- | --- |
| Open up the files | List the buttons on side and print what buttons the user can press. | D:\New folder (2)\Capture.PNG |
| Press button A | To Come up with the following steps in the process of adding a contact | D:\New folder (2)\2.PNG |
| Inserting a name when press button A | Should ask for phone number | D:\New folder (2)\4.PNG |
| Inserting a number when pressing buttonA | Should all be fine and it will ask for Pic Name | D:\New folder (2)\5.PNG |
| Inserting a picture name when pressing button A | Should all be fine and then it will proceed to say; Name is now one of your contacts | D:\New folder (2)\6.PNG |
| Pressing letter C to clear the box | Should be fine and clear the box without any issues | D:\New folder (2)\7.PNG |
| Pressing letter P to print all contacts | It will print the contacts and however it will not show the images as there is not room for more than 1 contact image | D:\New folder (2)\8.PNG |
| Pressing the BUTTON A to add a contact | It will run through the same procedure as when pressing the letter A |  |
| Continuing the procedure of adding a contact | It should all be fine and it will continue to ask for the phone number for the contact | D:\New folder (2)\9.PNG |
| Adding a phone number to the contact | Should be fine and it will continue and ask for the picture name | D:\New folder (2)\10.PNG |
| Adding a picture name to the contact | Should be fine, it will add the contact and then procedd to say Name has been added to your contact list | D:\New folder (2)\11.PNG |
| Pressing in the graphics plane to clear | It will clear everything | D:\New folder (2)\12.PNG |
| Pressing the button Get Details | It will ask for the name of the contact you wish to get the contact details from | D:\New folder (2)\13.PNG |
| Continuing on for Getting details | Asking for the details of a real contact. The image I added to this contact was just a random screenshot by the way | D:\New folder (2)\14.PNG |
| Trying to get detauls of a student that doesn’t exist | Wont do anything and will ask for a name again | D:\New folder (2)\15.PNG |
| Pressing button to print all contacts with tow of more | Works fine and with more contacts it wont break and should all be fine. | D:\New folder (2)\16.PNG |