

# Mobile App Programing PA2

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# PA2 – Contents

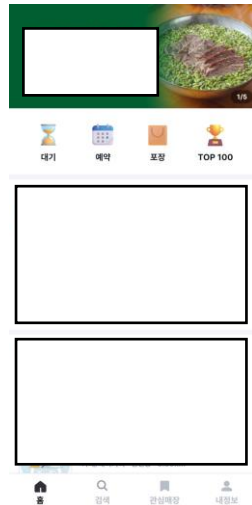
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- Topic & Application Example
- Spec 1 : Low-fidelity prototype
  - **Overview** of activities and transitions
- Spec 2 : Detailed descriptions for each activity
  - Activity **requirements checklist**
- Grading Criteria

# Topic & Application Example

- Simple Table reservation application

- E.g : Catch Table , Tabling



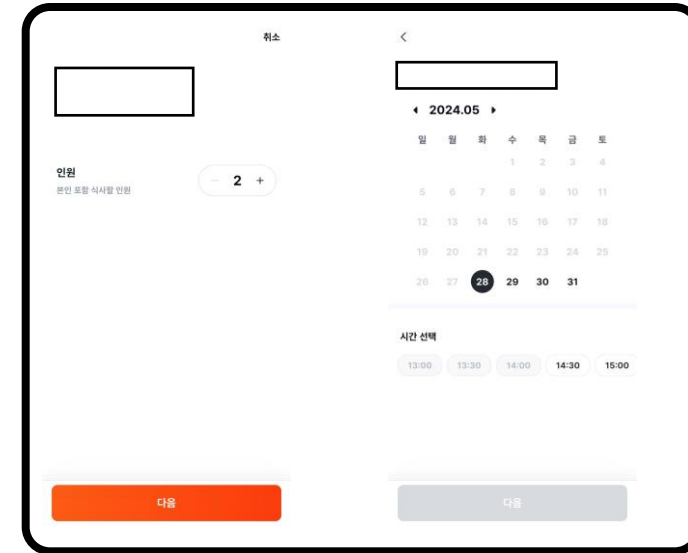
Main



Restaurant list



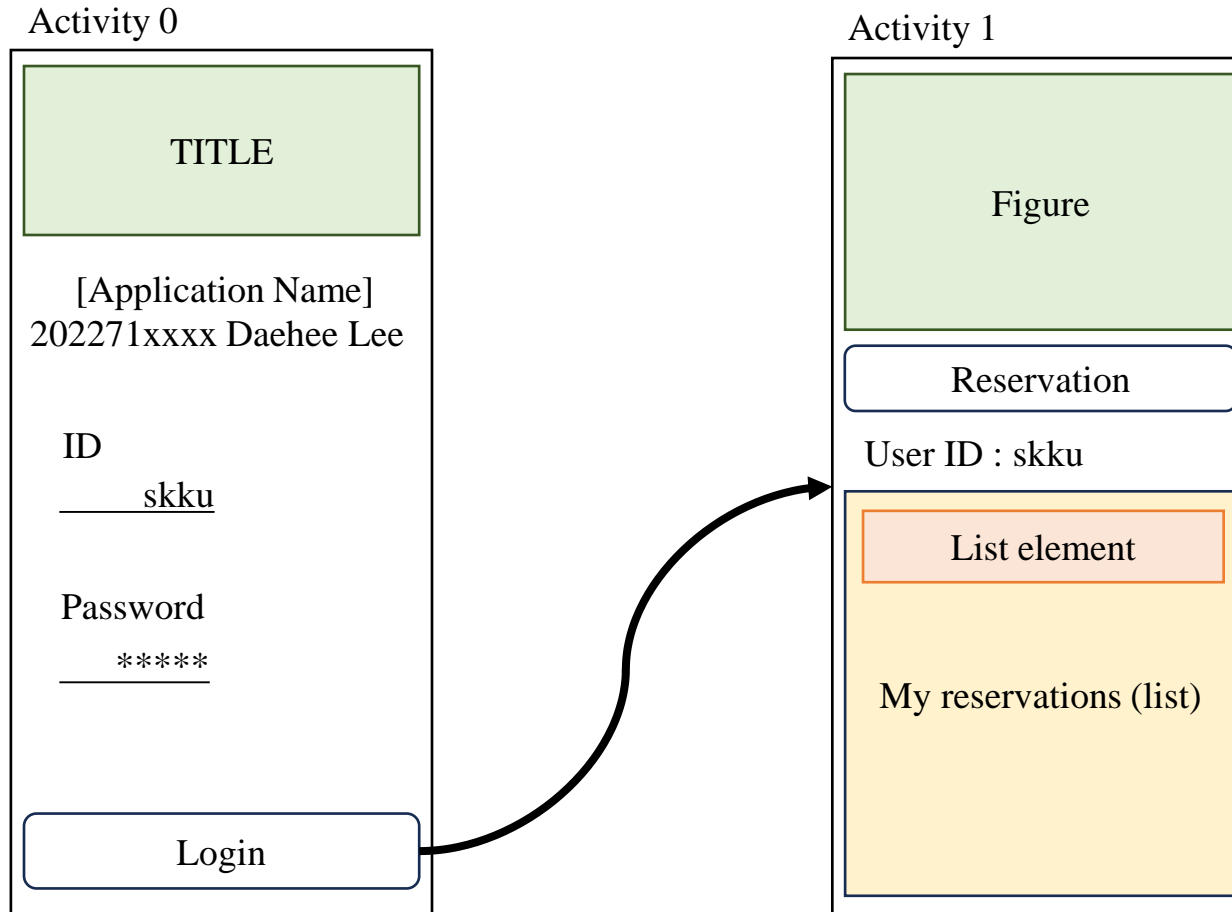
Restaurant info



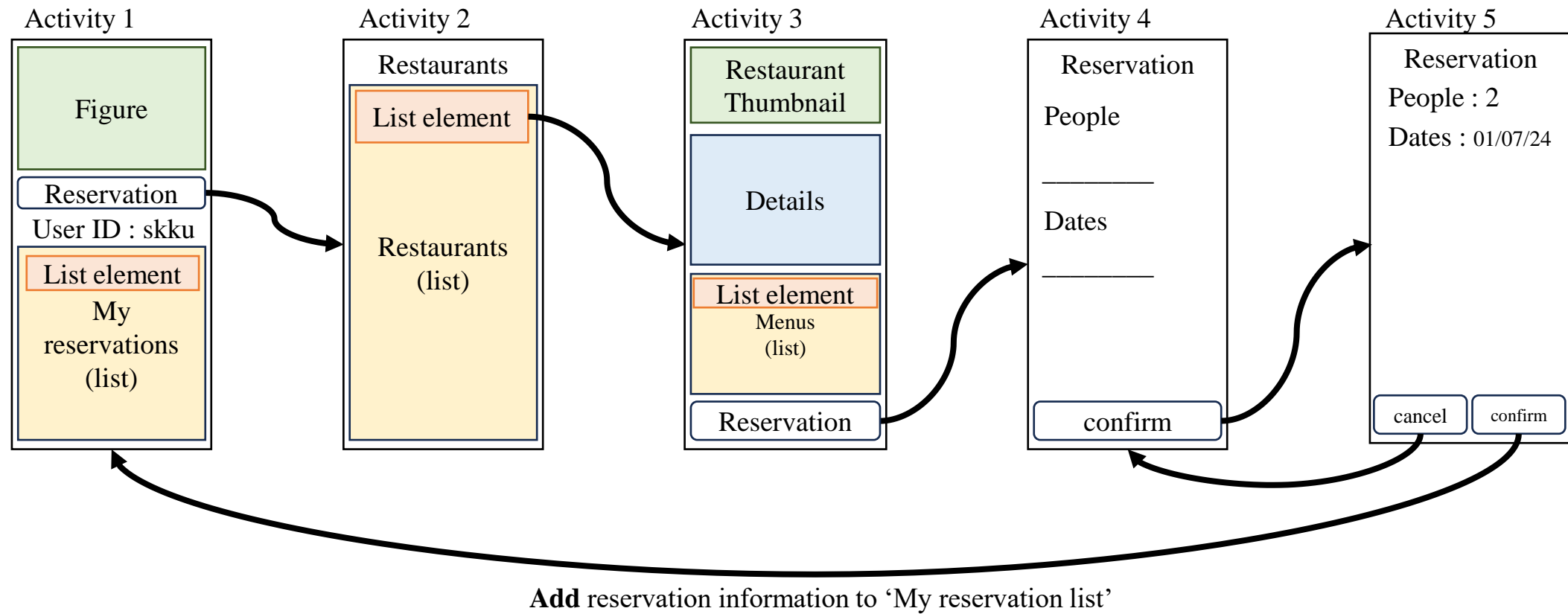
Reservation

Application Example

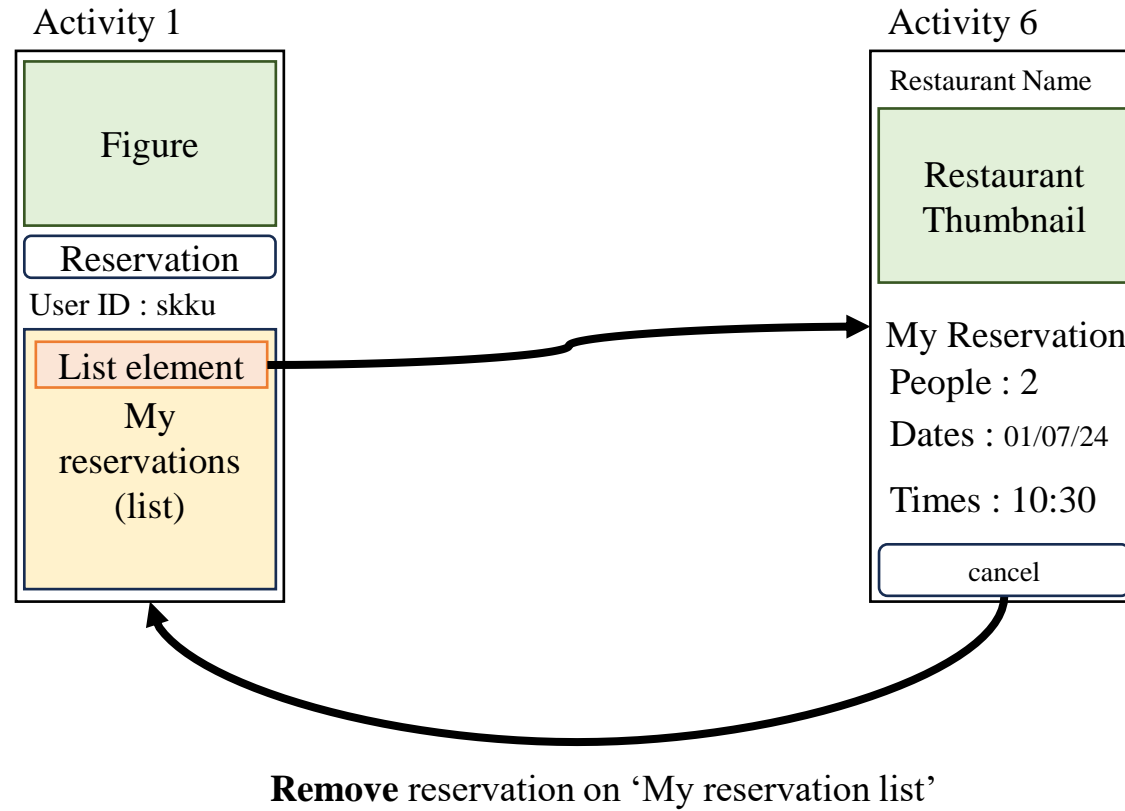
# Spec 1. – Overview & Low-fidelity prototype



# Spec 1. – Overview & Low-fidelity prototype



# Spec 1. – Overview & Low-fidelity prototype



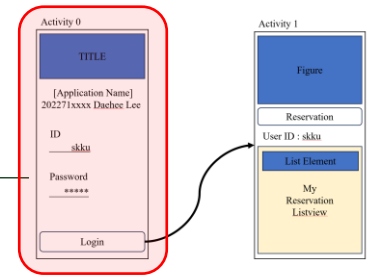
# Spec 2. – Overall

## Check list

- ✓ **Activity transition rule (if violated -5pt).**
  - When the back button is pressed in Activity 1, the application should terminate.
  - In Activities 2, 3, 4, and 5, 6 pressing the back button should return the user to the previous activity.
  - Upon completing the reservation in Activity 5, only the Main activity(Activity 1) should remain.
- ✓ As long as the checklist is satisfied, **any implementation is acceptable**. You can make additional assumptions if you need.
- ✓ For application data **user\_info.json** and **restaurant\_info.json** are given by file. You should use it for database.
- ✓ Place .json files on PA2/app/src/asset (e.g PA2/app/src/asset/user\_info.json, PA2/app/src/asset/restaurant\_info.json)
- ✓ You can hard code user and restaurant data in your application, **but there will be a (-10pt) penalty**.
- ✓ You can add dummy data in your data file for testing your application.
- ✓ No image files are provided. You may download images from the internet to use, and if possible, please save them using the file names specified in provided data file ( .json file )
- ✓ **All images** should be included in res/drawable folder. (e.g. res/drawable/[image\_name].[jpg/png/jpeg/...], res/drawable/kfc\_thumbnail.png)



# Spec 2. – Activity 0



## Check list

### Screen Components - 5pt

- **Does the screen include all below components?**
- Application TITLE FIGURE (Anything)
- Application Title(Anything)
- Your Student ID and Name
- Login field
- Password filed
- Login Button

### Activity Transition Login Button - 1pt

- When **Login Button** is pressed, **Activity 1** starts.

### Login Function - ID/Password Validation Check - 4pt

1. When **Login Button** is pressed, it starts **Activity 1** only if valid user ID and password in **user\_info.json** is typed.
2. If not, show login failed message by toast message.

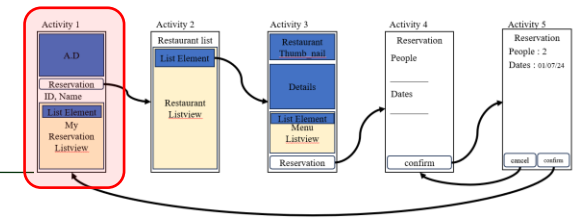
### Activity 0

Activity 0 screen layout components and labels:

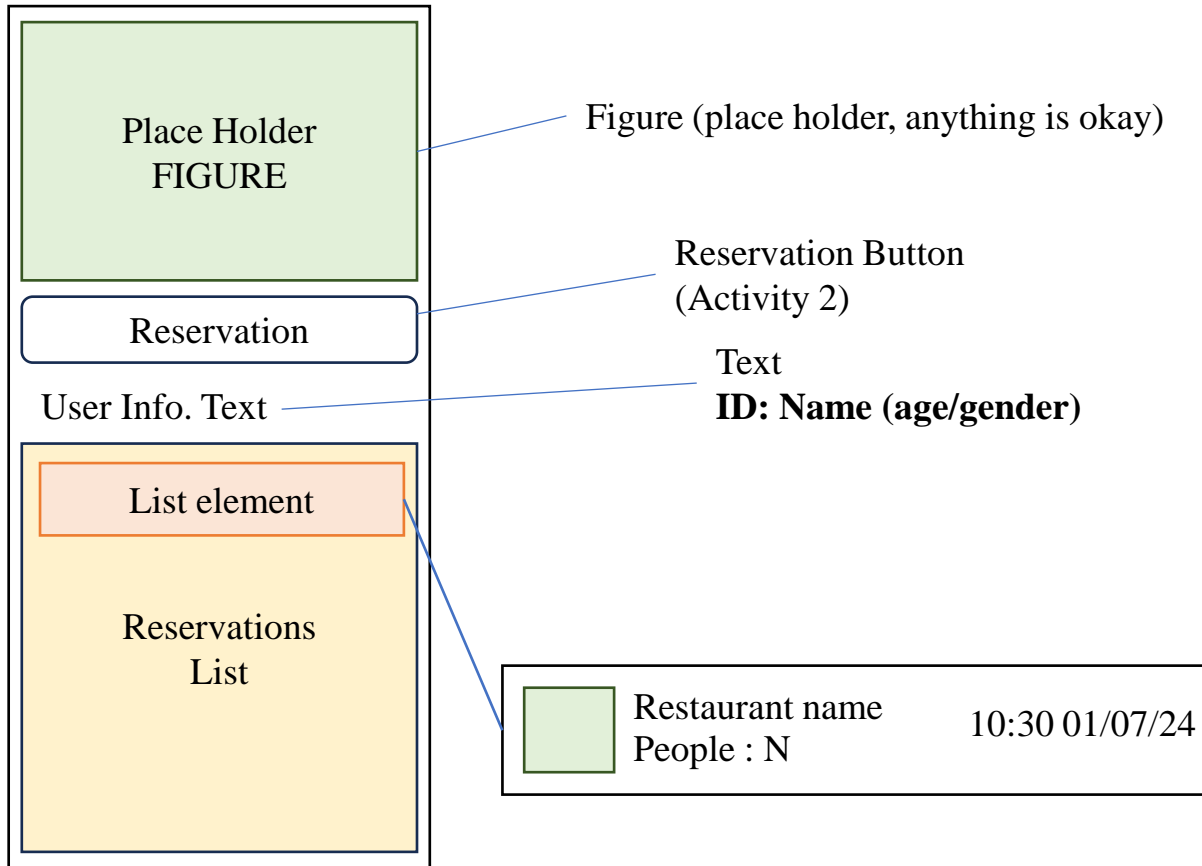
- TITLE FIGURE** (Green box) - Figure (place holder, anything is okay)
- [Application Title]**  
202271xxxx Daehee Lee - Your Student ID and Name
- ID**  
skku - User ID
- Password**  
\*\*\*\* - Password
- Login** (Button) - Login Button (Activity 1)



# Spec 2. – Activity 1



Activity 1



\* **Reservation List** should contain **both reservations from JSON and Activity 5.**

## Check list

### Screen Components - 6pt

- **Does the screen include all below components?**
- Place Holder FIGURE (Anything can possible)
- Reservation Button
- User Info. Text
  - **Formatted as “ID: Name (age/gender)”**
- Reservation List

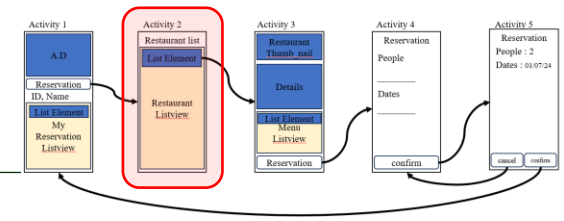
### Activity Transition Reservation Button - 1pt

- When **Reservation Button** is pressed, **Activity 2** starts.

### List-up My Reservation Status on Reservations List - 8pt

- Does the “**Reservation List**” section display the user’s reservation status (with details) correctly? \*
- **Each list element should contain below components:**
  - Restaurant Thumbnail, Restaurant Name
  - The number of people, Reservation Time and Date

# Spec 2. – Activity 2



## Check list

### Screen Components - 10pt

- **Is the given restaurant information displayed well? \***
- **Does the screen include all below components?**
- Activity Title (e.g. Restaurants)
- Restaurants List
- **Each Restaurant Element should contain below components:**
  - Restaurant Name
  - Restaurant Location
  - Restaurant Rates
  - Restaurant Opening Hours

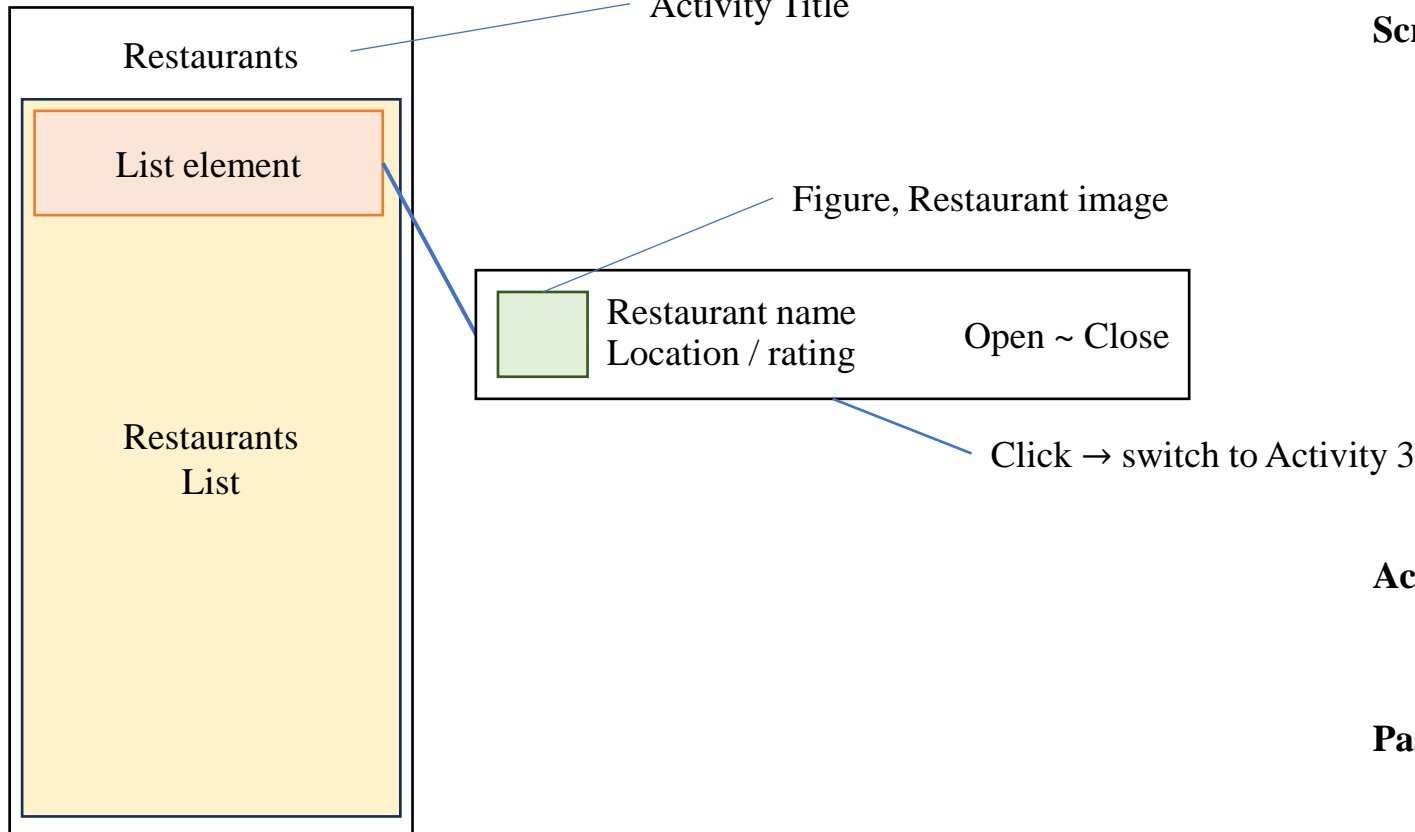
### Activity Transition with Restaurant Element - 1pt

- When **each Restaurant Element** is pressed, **Activity 3** starts.

### Passing Restaurant Elements - 9pt

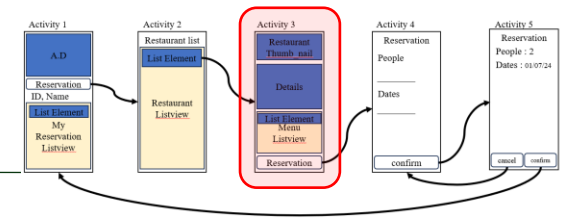
- When a restaurant element is clicked, does the clicked element's information passed to the next activity (**Activity 3**)?

### Activity 2



\* If you don't use restaurant.json to displaying restaurant list, you only get the partial points.

# Spec 2. – Activity 3



## Check list

### Screen Components - 3pt

- **Does the screen include all below components?**
- Restaurant Thumbnail Image (Anything Possible)
- Detail Part should contain following information:
  - Restaurant Name, Type and Location
  - Rates, Descriptions
  - Opening Hours
- Menu List and Reservation Button

### Restaurant Information Validation - 4pt

- **Does the restaurant information from Activity 2 appear in Activity 3 well? \***

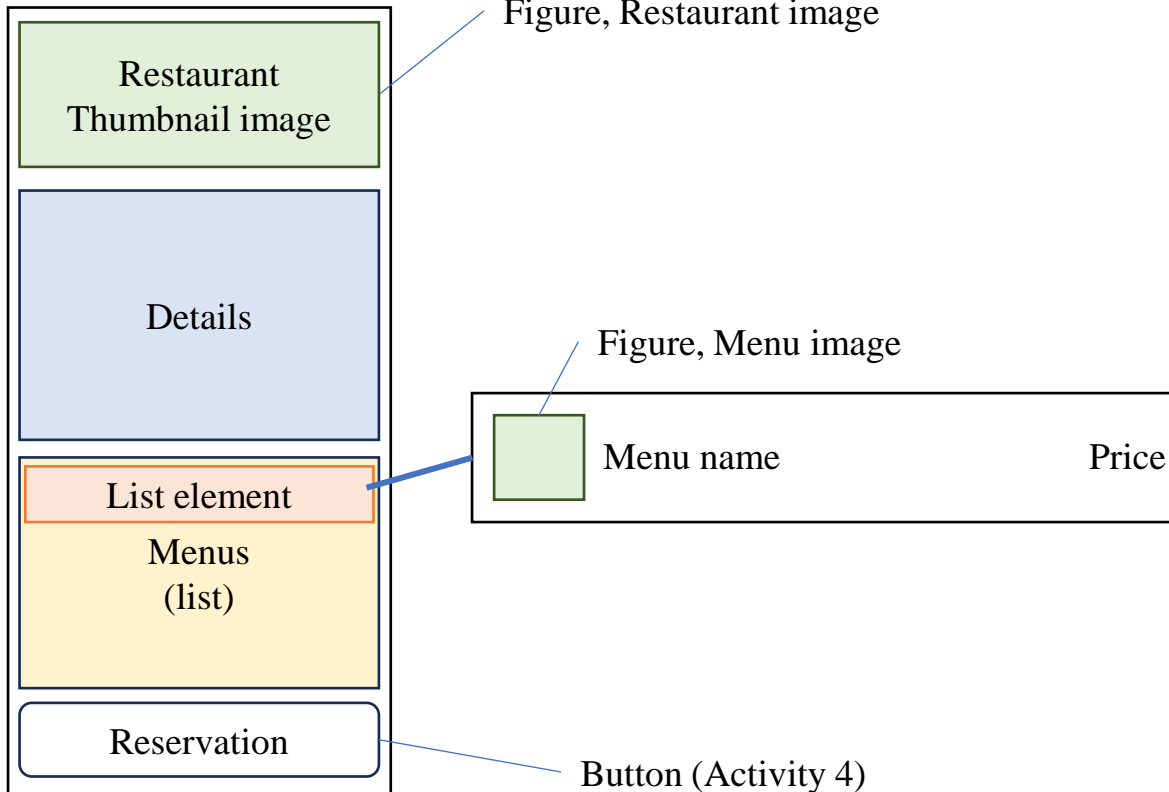
### Restaurant Menu List-Up - 7pt

- Are the restaurant's **menu and its information list** displayed well on screen? \*
- Each element should contain following information:
  - Menu Image (Anything), Menu Name and Price

### Activity Transition Reservation Button - 1pt

- When **Reservation Button** is clicked, Activity 4 starts.

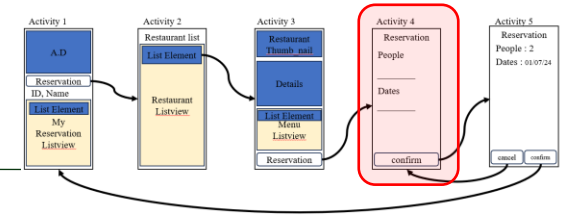
### Activity 3



**\* If you don't use restaurant.json to displaying restaurant list, you only get the partial points.**



# Spec 2. – Activity 4



Activity 4

Reservation

People

Date

Confirm

Any format is okay  
e.g. text field / calendar / radio button ...

Confirm Button (Activity 5)

## Check list

### Screen components - 3pt

- **Does the screen include all below components?**
- Number of People field
- Date field
- Confirm Button

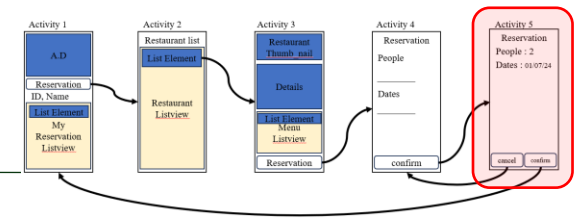
### Input Validation - 3pt

- Check whether the input “**People** field” is in **range from 1 to 10**.
- Check the “**Date**” field’s input whether its date is after today.

### Activity Transition Confirm Button - 1pt

- When **Confirm Button** is pressed, **Activity 5** starts.

# Spec 2. – Activity 5



Activity 5

### Reservation

People : 2

Dates : 01/07/24

Opening hours  
[open] ~ [close]

Time

cancel   confirm

Show reservation information from previous activity(Activity 4)

Any format is okay  
e.g. Text / radio group / Time

Button ( Activity 4 )

Button ( Activity 1 ) & Add Reservation  
to My reservation list on Activity 1

## Check list

### Screen components - 5pt

- **Does the screen include all below components?**
- Number of people
- Dates
- Opening hours [open]~[close]
- Time filed
- Cancel button, Confirm button.

### Data Validation – 3pt

- Is reservation information **from the previous activity** displayed appropriately?

### Time Validation – 3pt

- When the confirm button is clicked with an **invalid time** (time does not fall within the opening hours), **do not switch** your activity and display a **toast error message**.

### Activity Transition - 2pt

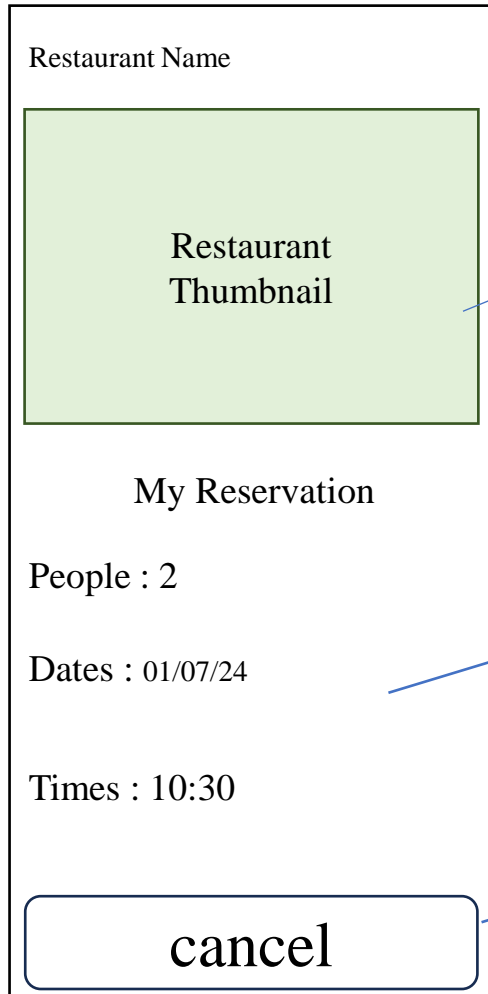
- When Cancele Button is pressed, return to **Activity 4**.
- When Confirm Button is pressed, return to **Activity 1**.

### My Reservation append - 5pt

- When a reservation is completed, does the screen switch to the main activity (Activity 1) and then correctly **reflect the new reservation in the 'My reservation list'**?

# Spec 2. – Activity 6

## Activity 6



Restaurant Name

Restaurant Thumbnail

My Reservation

People : 2

Dates : 01/07/24

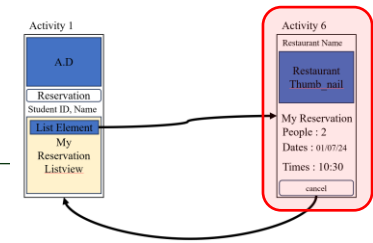
Times : 10:30

cancel

Figure, Restaurant image

Information of my reservation

Cancel button (Activity 1/toast message)



## Check list

### Screen components - 5pt

- Does the screen include all below components?
- Restaurant name, thumbnail (Anything possible)
- Reservation number of people
- Reservation dates
- Reservations times

### Data Validation – 4pt

- Is reservation information **from the previous activity** displayed appropriately?

### Activity Transition - 1pt

- When Cancel Button is pressed, return to **Activity 1**.

### My Reservation removal - 5pt

1. When cancel Button is pressed, it returns to **Activity 1**.
2. Show a **toast message** the reservation has been canceled.
3. Remove canceled reservation from the 'My reservations list' in **Activity 1**.



# Grading criteria

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- Criteria
  - Main score : Functionality of features listed on the checklist [100pt]
  - Additional score : Additional functionality (Anything) [+10pt]
  - Final Score :  $\min(100, \text{Main score} + \text{Additional score})$
- Evaluation environment
  - **Pixel 5 API 29**
- Submission
  - Submit single zip file with name “<Student ID>\_pa2.zip”
  - Shift twice -> search “export” -> Export to .zip -> change file name and select location to save
  - Do not care about ending ‘-<number>’ (ex. 2024312345-1.zip)
- Schedule
  - Application : During Class
  - Application Report : by June 9th, 23:59