

## Assignment 4 – Revised Pizza Ordering

### Goals

- Use MVC techniques to expand our previous pizza ordering app
- Use an explicit intent to launch a new activity that displays the order to the user
- Allow the user to either confirm or cancel the order
- On original activity, display a message to the user based on their choice to confirm or cancel order (this means you must use **startActivityForResult** with launching the second activity)
- Create a shared preference for favorite pizza

### Required naming convention *(replace # with the current assignment number)*

- **Application Name / Project Name**
  - *A#.Lastname.FirstName*
- **Package Name**
  - *itp341.lastname.firstname.a#.app*
- **Zip File** (include entire Eclipse folder)
  - *A#.Lastname.FirstName.zip*

### Requirements

- Create new Android Application Project
  - Min SDK: API 14
  - Target SDK: API 18
  - Compile with: API 19
  - Create and test basic app
- Follow default prompt, but make sure to choose **Empty Activity**
- UI
  - Follow the rules in the Android Design Guide. This includes height of widgets, spacing, padding, etc.  
<http://developer.android.com/design/style/metrics-grids.html>
- Model – **Pizza Order**
  - Create a model class for a pizza order (**PizzaOrder**)
  - This class should be a POJO and includes all the standards elements, for example

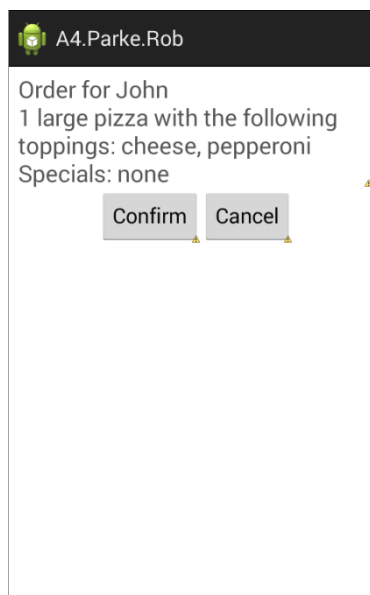
- Methods
  - Constructor
  - toString
  - getters and setters
- Instance variables for all pizza order attribute
  - Name
  - Toppings (it is fine to create three booleans for these, but you can also use a more sophisticated approach)
  - Specials
  - Size
  - Number of pizzas

- UI View – **activity\_main.xml**

- Most of the layout is provided for you (be sure to download from Blackboard)

- You are encourage to add to and improve the sample layout (extra credit will be given)
- Activity – **MainActivity**
  - Best Practices Reminder
    - Be sure to create class members that will refer to the widget you want to access later
    - This means you should only call **findViewById** in the **onCreate** method
  - Configure listeners for buttons
    - See below
- Listener – **MainActivity**
  - Create a listener for each button

- When the user clicks the **Save Favourite** button:
  - The currently-displayed specifications for the pizza order (e.g. name, size, etc.) will be saved to SharedPreferences to create persistent preferences
  - Display a Toast telling the user favorite has been saved
- When the user clicks the **Load Favourite** button:
  - The previously-saved specifications for the pizza order must be loaded from SharedPreferences
  - The UI should be update, but a pizza should
  - Display a Toast telling the user favorite has been loaded
- When the user clicks the **Order** button:
  - The specifications for the pizza must be packaged into a **PizzaOrder** object and be sent to the next activity
  - The Intent should be executed in such a way that **MainActivity** will know how the status of how **ViewOrderActivity** ended
- UI View – **activity\_view\_orders.xml**
  - Follow the rules in the Android Design Guide. This includes height of widgets, spacing, padding, etc.  
<http://developer.android.com/design/style/metrics-grids.html>
  - Create a similar layout to the one below



- You are encourage to add to and improve the sample layout (extra credit will be given)

- Layout must present all the user's pizza option in a visually-pleasing manner
  - Layout must include two buttons: **Confirm** and **Cancel**
- Activity – **ViewOrderActivity**
  - Best Practices Reminder
    - Be sure to create class members that will refer to the widget you want to access later
    - This means you should only call **findViewById** in the **onCreate** method
  - Configure listeners for buttons
    - See below
- Listener – **ViewOrderActivity**
  - Create a listener for each button
  - When the user clicks the **Confirm** button:
    - This means the pizza order is correct so let **MainActivity** know that the user confirmed the order
    - Call **finish()** to end the current activity
  - When the user clicks **Cancel**:
    - This means the pizza order is incorrect so let **MainActivity** know that the user canceled the order
    - Call **finish ()** to end the current activity
- Activity – **MainActivity**
  - After returning from **ViewOrderActivity**, you should do one of the following
    - If user clicked **Confirm**
      - Clear all the fields in the form
      - Display a **Toast** thanking the user for their order
    - If user clicked **Cancel**
      - Make sure all the previous specifications from the user pizza are in the form
      - Display a **Toast** asking them to try again
- Test app on Nexus 5 AVD
- Test app on Nexus 7 AVD

## Sample Output (using Nexus 5)

### Main Activity

The Main Activity contains the following fields and controls:

- Name:** A text input field. In the first screenshot, it contains the placeholder text "Enter your name". In the second screenshot, it contains the text "John".
- Toppings:** Three checkboxes labeled "pepperoni", "pineapple", and "tofu". In the second screenshot, "pepperoni" is checked.
- Size:** Three radio buttons labeled "small", "medium", and "large". In the second screenshot, "large" is selected.
- Free specials:** A dropdown menu currently showing "None".
- Number of Pizzas:** A horizontal slider with a blue knob. The value is set to 1.
- Buttons:** Three buttons at the bottom: "Save favourite", "Load favourite", and "Order Pizza".

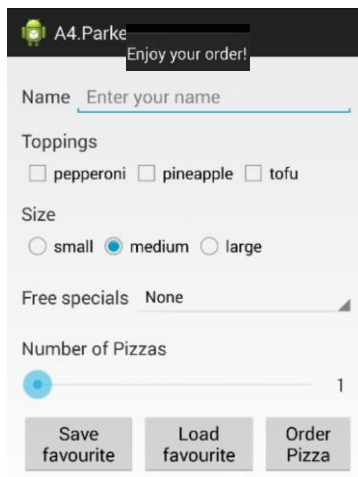
### ViewOrderActivity

The ViewOrderActivity displays the following information:

- Header:** A dark bar with the app icon and the text "A4.Parke.Rob".
- Order Summary:**
  - Order for John
  - 1 large pizza with the following toppings: cheese, pepperoni
  - Specials: none
- Buttons:** Two buttons at the bottom: "Confirm" and "Cancel".

## Main Activity

After clicking **Confirm** on `ViewOrderActivity`



A4.Parke

Enjoy your order!

Name

Toppings

☐ pepperoni ☐ pineapple ☐ tofu

Size

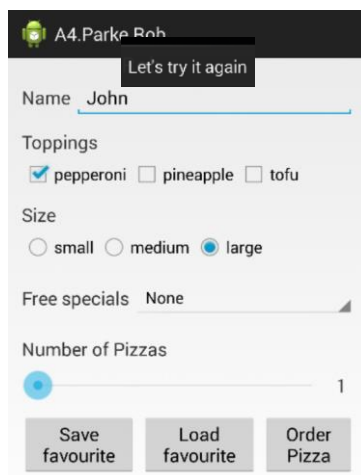
☐ small ☒ medium ☐ large

Free specials

Number of Pizzas

1

After clicking **Cancel** on `ViewOrderActivity`



A4.Parke Rob

Let's try it again

Name

Toppings

☒ pepperoni ☐ pineapple ☐ tofu

Size

☐ small ☐ medium ☒ large

Free specials

Number of Pizzas

1

## Deliverables

1. A compressed file containing your app. Follow the guidelines for full credit.  
[Here are the instructions for submission](#)
  - a) Navigate to your project folder.
  - b) Include the *entire* folder in a zip file
  - c) Upload zip file to Blackboard site for our course

**Grading**

Item	Points
Pizza POJO	5
Main activity responds to specification	10
Main activity starts View Orders activity	5
Pizza POJO is passed between activities	10
View Orders layout meets specifications	5
View Orders returns status of pizza order	5
Shared Preference Loading and Saving	10
<b>Total</b>	<b>50</b>