

Vaccine Registration

CSC2007 Mobile Application Development Spring 2023

Creating a registration screen

Fork the repo **csc2007-quiz01-2023** and inspect the code within the project.

The goal of this section is to create a registration screen that accepts a 10-digit SMS registration code and NRIC. The fields are text fields (**EditText**). The “Get Started” and “Clear” buttons are below the text fields.

Design the layout of the `RegistrationActivity` similar to the given screenshot, to display a registration screen. Use the provided image file in the Android project under `/res/drawable/vaccinationsglogosm.png` to create the screen.

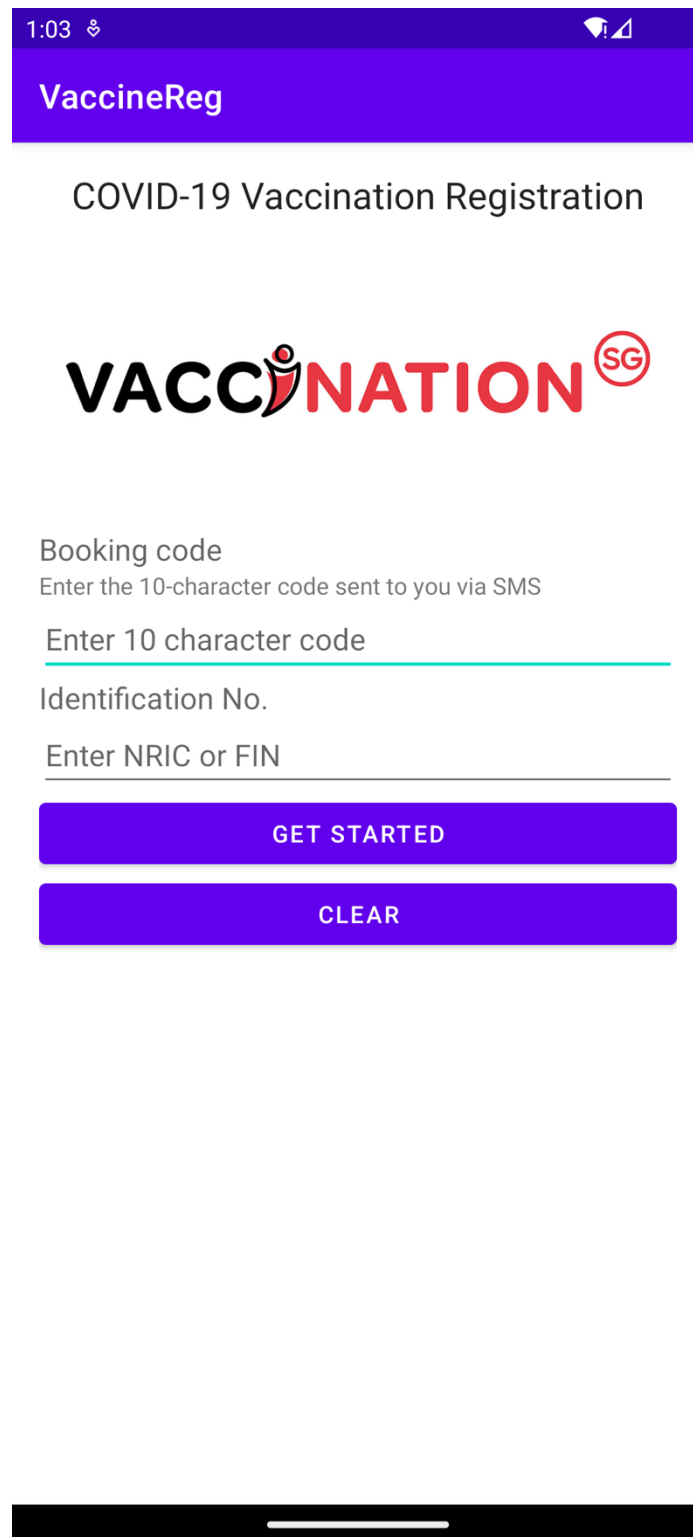
Hitting the “Get Started” button will validate the 10-digit SMS registration code and NRIC. Hitting the “Clear” button will clear the values of the text fields.

Ensure that the text fields have a hint value entered in them as shown in the screenshot. Please ensure the IDs are correct within the XML.

IMPORTANT: Ensure there are no spelling errors on the button text.

IMPORTANT: Ensure the following IDs within the XML:

- id for the image is `imageViewVaccination`
- id for the registration code is `editTextSMSCode`
- id for the NRIC is `editTextNRIC`
- id for the Get Started button is `buttonGetStarted`
- id for the Clear button is `buttonClear`
- id for the error message is `textViewError`



The screenshot shows a mobile application interface for 'VaccineReg'. At the top, a purple header bar contains the text 'VaccineReg'. Below this, the title 'COVID-19 Vaccination Registration' is displayed. The 'VACCINATION SG' logo is prominently featured, with 'VACCINATION' in black and red, and 'SG' in a red circle. The form consists of two input fields: 'Booking code' with a hint 'Enter the 10-character code sent to you via SMS' and 'Identification No.' with a hint 'Enter NRIC or FIN'. Below the inputs are two purple buttons labeled 'GET STARTED' and 'CLEAR'. A black home indicator bar is at the bottom.

1:03

VaccineReg

COVID-19 Vaccination Registration

VACCINATION SG

Booking code
Enter the 10-character code sent to you via SMS

Enter 10 character code

Identification No.
Enter NRIC or FIN

GET STARTED

CLEAR

RegistrationActivity

Check the validity of the fields entered

On the registration screen, hitting the “Get Started” button will first validate the 10-character registration code. Only when the registration code is valid, then the NRIC is checked

Implement the following logic to check for **valid SMS registration code formats**:

- Exactly 10 characters
- The code should be alphanumeric (not all letters, not all numbers)

The registration code logic check should be implemented within a function in `RegistrationActivity` called:

```
fun isSMSCodeValid (smsCode: String): Boolean {  
  
}
```

If the SMS registration code is invalid, an error message will appear with the string: “Please enter a valid code”.

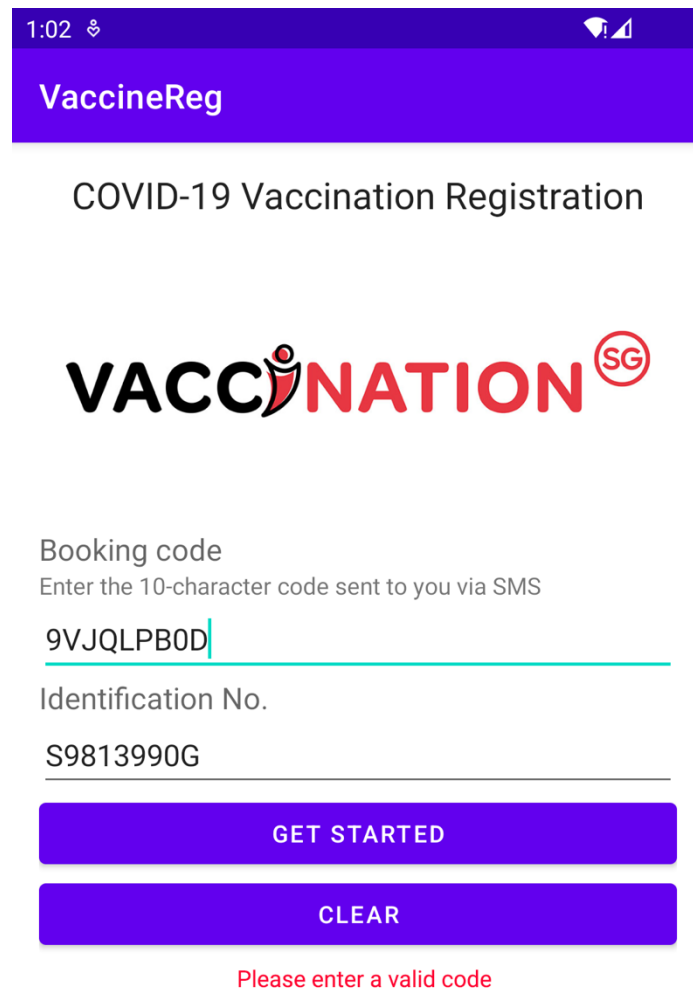
Implement the following logic to check for **valid NRIC formats**:

- Exactly 9 characters total
- Exactly 7 numerical digits
- A letter at the front and at the back

The NRIC logic check should be implemented within a function called:

```
fun isNRICValid (nricNumber: String): Boolean {  
  
}
```

If the NRIC number is invalid, a an error message will appear with the string “Please enter a valid NRIC”.



The screenshot shows a mobile application interface for 'VaccineReg'. At the top, there is a status bar with the time '1:02' and signal icons. Below the status bar is a purple header with the text 'VaccineReg'. The main title 'COVID-19 Vaccination Registration' is centered below the header. The 'VACCINATION SG' logo is displayed, with 'VACCINATION' in black and 'SG' in a red circle. The 'Booking code' section has a label 'Enter the 10-character code sent to you via SMS' and a text input field containing '9VJQLPB0D'. The 'Identification No.' section has a text input field containing 'S9813990G'. Below the input fields are two purple buttons: 'GET STARTED' and 'CLEAR'. A red error message 'Please enter a valid code' is displayed below the 'GET STARTED' button.

1:02

VaccineReg

COVID-19 Vaccination Registration

VACCINATION SG

Booking code
Enter the 10-character code sent to you via SMS

9VJQLPB0D

Identification No.


S9813990G

GET STARTED

CLEAR


Please enter a valid code

RegistrationActivity with invalid 10 character code

1:02 

VaccineReg

COVID-19 Vaccination Registration



Booking code
Enter the 10-character code sent to you via SMS

9VJQLPB0DF

Identification No.

S98139907

GET STARTED

CLEAR

Please enter a valid NRIC

RegistrationActivity with invalid NRIC

Main screen on successful registration

On successful registration, the user is directed to the next screen, where a welcome message, NRIC, a text field to enter the date and a **Spinner** to select the polyclinic name. The address of the given polyclinic is displayed in a line of text below the Spinner.

The NRIC displayed is not hardcoded and will depend on what is entered on the registration screen.

The date text field displays today's date in the format of DD/MM/YYYY. The displayed date is not hardcoded.

The polyclinic names are listed in the Spinner. Selecting a polyclinic will update the line of text below the spinner to display the corresponding address

Examples on how to create a Spinner are here:

<https://developer.android.com/guide/topics/ui/controls/spinner>

The table of vaccination centres and their addresses is provided below:

Vaccination Centre	Address
JTVC Ang Mo Kio (Former AMK ITE)	4300 Ang Mo Kio Ave 5 S(569869)
JTVC Bukit Merah (Former SEAB Centre)	8 Lower Delta Road S(169198)
JTVC Commonwealth (Former MOE Heritage Centre)	402 Commonwealth Drive S(149599)
JTVC Jurong East (Former Shuqun Secondary School)	450 Jurong East Street 21 S(609604)
JTVC Jurong West (Former Hong Kah Secondary School)	931 Jurong West Street 42 S(649370)
JTVC Kaki Bukit (Former Bedok North Secondary School)	20 Jalan Damai S(419612)
JTVC Pasir Ris (Former Siglap Secondary School)	10 Pasir Ris Drive 10 S(519385)
JTVC Sengkang (Former Preschool)	60 Sengkang East Way S(548596)
JTVC Woodlands (Former Woodlands Bus Interchange)	3A Woodlands Square S(737735)
JTVC Yishun (Former Yishun Bus Interchange)	20A Yishun Central S(768830)

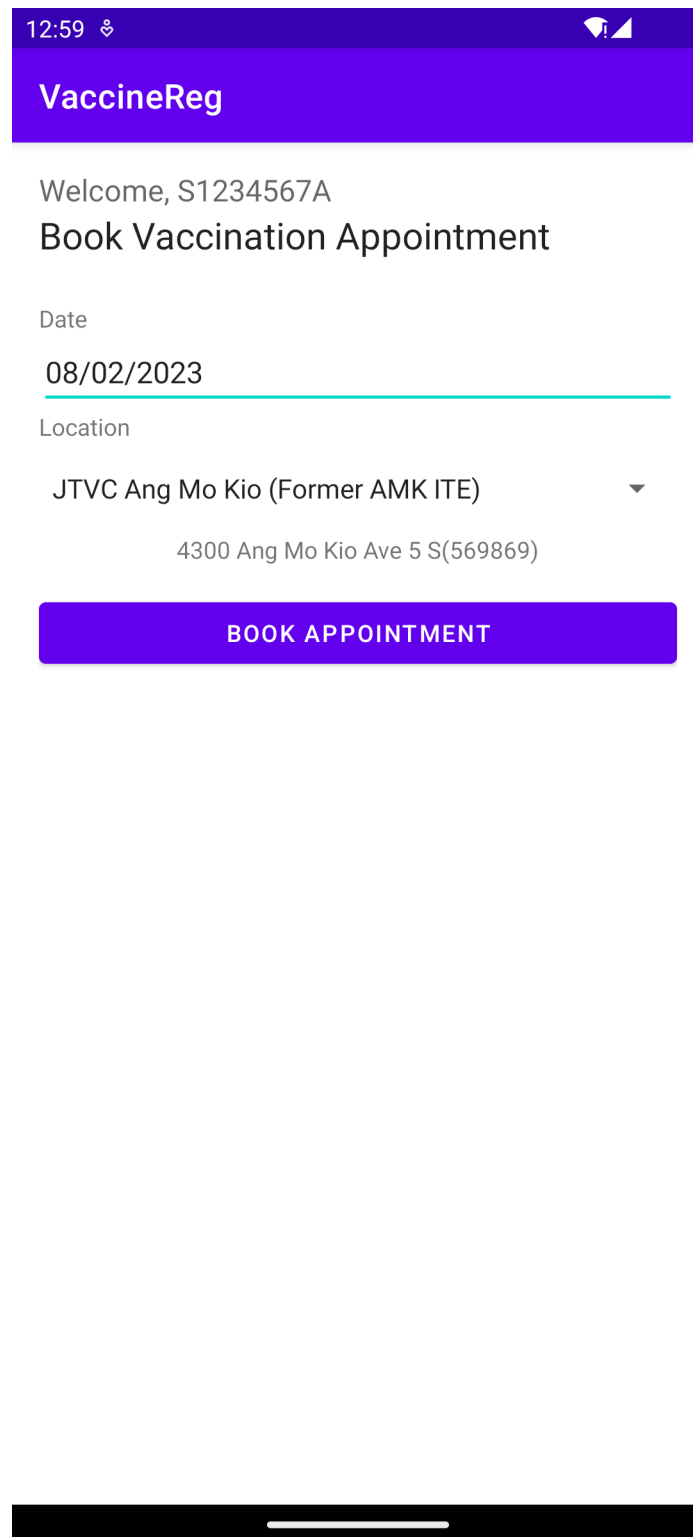
Note: These values are also provided in `strings.xml` within the project

Implement the screen `MainActivity` to display the user's NRIC on successful registration, along with the date text field in the correct format, Spinner for selecting the polyclinic location, and display of the vaccination centre address as depicted in the screenshots. Implement the logic to change the displayed polyclinic address based on the spinner selection.

IMPORTANT: Ensure the following within the XML for MainActivity:

- id for the welcome message and name is `textViewWelcome`
- id for the date field is `editTextDate`
- id for the spinner is `spinnerVaccinationCentre`
- id for the address text display is `textViewAddress`
- id for the button is `buttonBookAppointment`

Lab Quiz 1: Vaccine Registration



The screenshot displays the 'VaccineReg' app interface. At the top, a status bar shows the time as 12:59 and signal strength. Below the status bar, a purple header bar contains the app name 'VaccineReg'. The main content area is white and features a welcome message 'Welcome, S1234567A' followed by the title 'Book Vaccination Appointment'. There are two input fields: 'Date' with the value '08/02/2023' and 'Location' with the value 'JTV Ang Mo Kio (Former AMK ITE)'. Below the location field, the address '4300 Ang Mo Kio Ave 5 S(569869)' is displayed. A purple button labeled 'BOOK APPOINTMENT' is positioned below the address. At the bottom of the screen, a black bar with a white horizontal line is visible.

MainActivity on successful registration, the entered NRIC and today's date is displayed. Selected location is JTV Ang Mo Kio.



12:57

VaccineReg

Welcome, S1234567A

Book Vaccination Appointment

Date

08/02/2023

Location

- JTVC Ang Mo Kio (Former AMK ITE)
- JTVC Bukit Merah (Former SEAB Centre)
- JTVC Commonwealth (Former MOE Heritage Centre)
- JTVC Jurong East (Former Shuqun Secondary School)
- JTVC Jurong West (Former Hong Kah Secondary Scho..
- JTVC Kaki Bukit (Former Bedok North Secondary Scho..
- JTVC Pasir Ris (Former Siglap Secondary School)
- JTVC Sengkang (Former Preschool)
- JTVC Woodlands (Former Woodlands Bus Interchange)
- JTVC Yishun (Former Yishun Bus Interchange)

MainActivity on successful registration, the entered NRIC and today's date is displayed. The Spinner is open.

Confirmation screen on successful booking

On successful booking, the user is directed to the next screen `ConfirmActivity`, where the NRIC, the vaccination centre name and address are displayed on separate lines.

The NRIC displayed is not hardcoded and will depend on what is entered on the booking screen **MainActivity**.

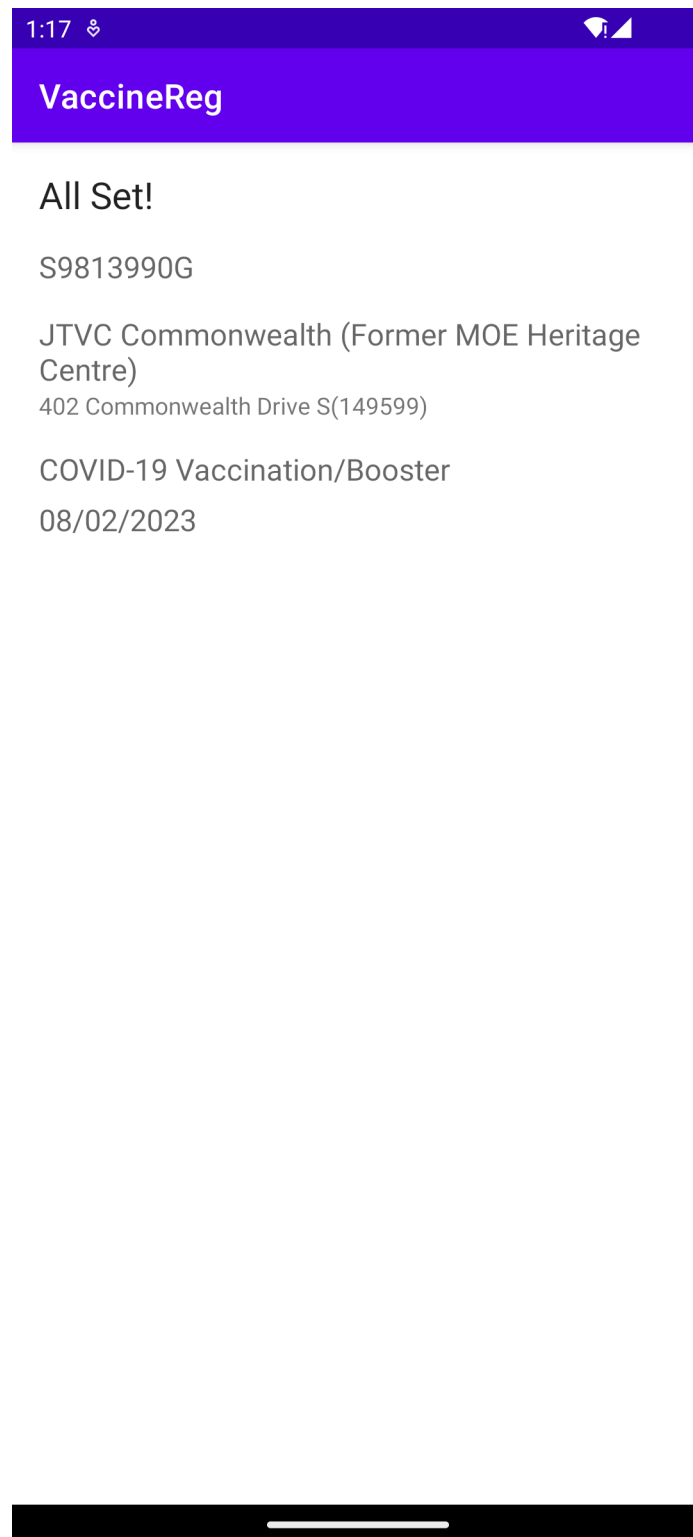
The booked date is displayed in the format of DD/MM/YYYY. The displayed date is not hardcoded and is dependent on what was entered on the previous screen.

Implement the `ConfirmActivity` as given in the screenshots.

IMPORTANT: Ensure the following within the XML for `ConfirmActivity`:

- **id for the NRIC is `textViewNRIC`**
- **id for the vaccination centre is `textViewCentre`**
- **id for the address is `textViewAddress`**
- **id for the date is `textViewBookingDate`**

Lab Quiz 1: Vaccine Registration



Lab Quiz 1 Grading Criteria

Total: 16 marks

1. **RegistrationActivity** layout and UI elements are similar to screenshot (1 mark)
2. **MainActivity** layout and UI elements are similar to screenshot (1 mark)
3. **ConfirmActivity** layout and UI elements are similar to screenshot (1 mark)
4. Logic on the Clear button to clear the fields (1 mark)
5. Logic to check SMS registration code validity (1 mark)
6. Logic to check NRIC validity (1 mark)
7. Display error message if SMS registration code is invalid (1 mark)
8. Display error message if NRIC is invalid (1 mark)
9. Navigate to successful main screen based on valid registration (1 mark)
10. Display welcome message with NRIC entered from registration screen (1 mark)
11. Implement the logic to display today's date in the text field in DD/MM/YYYY format (1 mark)
12. Implement the logic in the spinner to update the address based on the selected vaccination centre (1 mark)
13. Navigate to confirmation screen based on valid booking (1 mark)
14. Implement the logic to display confirmation information based on selected vaccination centre, address, NRIC and date on the **MainActivity** (1 mark)
15. Modular code design and good naming conventions for methods and variables (1 mark)
16. Well-commented code (1 mark)

Remember to comment and indent the code and implement it in a modular fashion, using different methods or classes if appropriate. Ensure it conforms to Kotlin coding conventions.

Commit and push all changes to your forked repository **csc2007-quiz01-2023**.

IMPORTANT: Do not change the activity names, method names, method signatures or package name. Ensure there are no spelling errors on all the text.

END OF DOCUMENT