INPUT EVENTS

- WHEN CONSIDERING EVENTS WITHIN YOUR USER INTERFACE, THE APPROACH IS TO CAPTURE THE EVENTS FROM THE SPECIFIC VIEW OBJECT THAT THE USER INTERACTS WITH.
- THE VIEW CLASS PROVIDES THE MEANS TO DO SO.
- FOR INSTANCE, WHEN A VIEW (SUCH AS A BUTTON) IS TOUCHED, THE ONTOUCHEVENT() METHOD IS CALLED ON THAT OBJECT.
- HOWEVER, IN ORDER TO INTERCEPT THIS, YOU MUST EXTEND THE CLASS AND OVERRIDE THE METHOD.
- HOWEVER, EXTENDING EVERY VIEW OBJECT IN ORDER TO HANDLE SUCH AN EVENT WOULD NOT BE PRACTICAL. THIS IS WHY THE VIEW CLASS ALSO CONTAINS A COLLECTION OF NESTED INTERFACES WITH CALLBACKS THAT YOU CAN MUCH MORE EASILY DEFINE.

CONT …

- WHILE YOU WILL MORE COMMONLY USE THE EVENT LISTENERS TO LISTEN FOR USER INTERACTION, THERE MAY COME A TIME WHEN YOU DO WANT TO EXTEND A VIEW CLASS, IN ORDER TO BUILD A CUSTOM COMPONENT.
- PERHAPS YOU WANT TO EXTEND THE BUTTON CLASS TO MAKE SOMETHING MORE FANCY.
- IN THIS CASE, YOU'LL BE ABLE TO DEFINE THE DEFAULT EVENT BEHAVIORS FOR YOUR CLASS USING THE CLASS EVENT HANDLERS.

EVENT LISTENERS

- AN EVENT LISTENER IS AN INTERFACE IN THE VIEW CLASS THAT CONTAINS A SINGLE CALLBACK METHOD.
- THESE METHODS WILL BE CALLED BY THE ANDROID FRAMEWORK WHEN THE VIEW TO WHICH THE LISTENER HAS BEEN REGISTERED IS TRIGGERED BY USER INTERACTION WITH THE ITEM IN THE UI.
- INCLUDED IN THE EVENT LISTENER INTERFACES ARE THE FOLLOWING CALLBACK METHODS
  - **ONCLICK()**: FROM VIEW.ONCLICKLISTENER. THIS IS CALLED WHEN THE USER EITHER TOUCHES THE ITEM (WHEN IN TOUCH MODE), OR FOCUSES UPON THE ITEM WITH THE NAVIGATION-KEYS OR TRACKBALL AND PRESSES THE SUITABLE "ENTER" KEY OR PRESSES DOWN ON THE TRACKBALL.
  - **ONLONGCLICK()**: FROM VIEW.ONLONGCLICKLISTENER. THIS IS CALLED WHEN THE USER EITHER TOUCHES AND HOLDS THE ITEM (WHEN IN TOUCH MODE), OR FOCUSES UPON THE ITEM WITH THE NAVIGATION-KEYS OR TRACKBALL AND PRESSES AND HOLDS THE SUITABLE "ENTER" KEY OR PRESSES AND HOLDS DOWN ON THE TRACKBALL (FOR ONE SECOND).
  - **ONFOCUSCHANGE()**: FROM VIEW.ONFOCUSCHANGELISTENER. THIS IS CALLED WHEN THE USER NAVIGATES ONTO OR AWAY FROM THE ITEM, USING THE NAVIGATION-KEYS OR TRACKBALL.

CONT …

- **ONKEY()**: FROM VIEW.ONKEYLISTENER. THIS IS CALLED WHEN THE USER IS FOCUSED ON THE ITEM AND PRESSES OR RELEASES A HARDWARE KEY ON THE DEVICE.
- **ONTOUCH()**: FROM VIEW.ONTOUCHLISTENER. THIS IS CALLED WHEN THE USER PERFORMS AN ACTION QUALIFIED AS A TOUCH EVENT, INCLUDING A PRESS, A RELEASE, OR ANY MOVEMENT GESTURE ON THE SCREEN (WITHIN THE BOUNDS OF THE ITEM).
- **ONCREATECONTEXTMENU()**: FROM VIEW.ONCREATECONTEXTMENULISTENER. THIS IS CALLED WHEN A CONTEXT MENU IS BEING BUILT (AS THE RESULT OF A SUSTAINED "LONG CLICK"). SEE THE DISCUSSION ON CONTEXT MENUS IN THE MENUS DEVELOPER GUIDE.
- I.E

```
PRIVATE ONCLICKLISTENER MCORKYLISTENER = NEW ONCLICKLISTENER() {
    PUBLIC VOID ONCLICK(VIEW V) {
      // DO SOMETHING WHEN THE BUTTON IS CLICKED
    }
};
```

CONT …

```
PROTECTED VOID ONCREATE(BUNDLE SAVEDVALUES) {
    …
    // CAPTURE OUR BUTTON FROM LAYOUT
    BUTTON BUTTON = (BUTTON)FINDVIEWBYID(R.ID.CORKY);
    // REGISTER THE ONCLICK LISTENER WITH THE IMPLEMENTATION ABOVE
    BUTTON.SETONCLICKLISTENER(MCORKYLISTENER);
    …
}
```