Mobile Dev A3.3C

Daniel Coady (102084174)

23/09/2019

Part 1

In this application there are two different fragments:

- The single date view for each location in the view pager

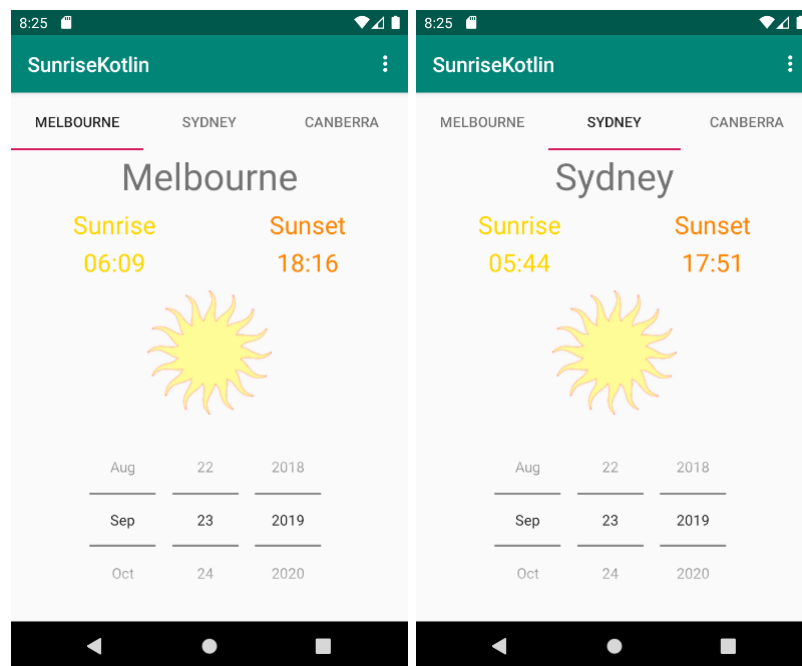- The date views in the generate table activity for the recycler view

Figure 1: The screen that will appear as you launch the application and viewing another location
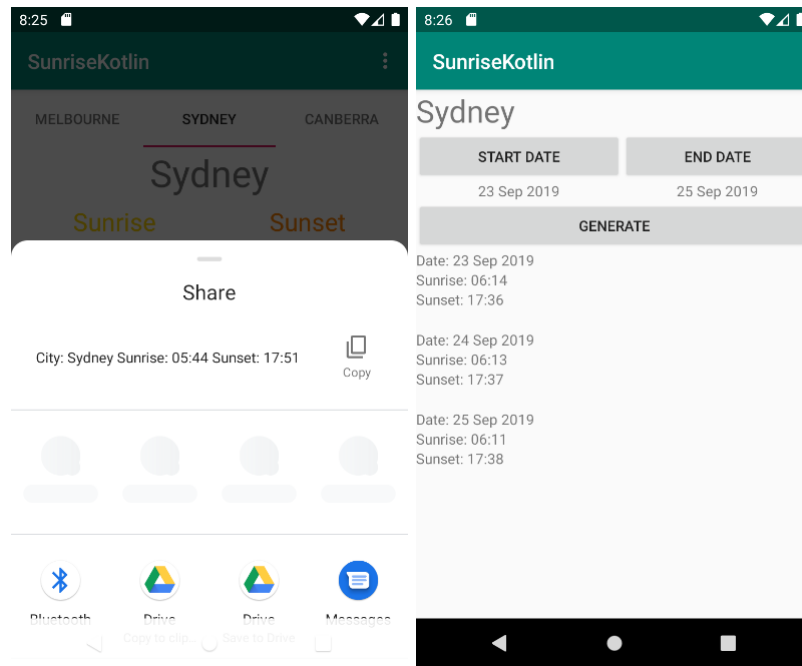
Figure 2: Share and generate table functionality

```kotlin
class MyViewPagerAdapter(manager: FragmentManager) : FragmentPagerAdapter(manager) {

    private val fragmentList : MutableList<Fragment> = ArrayList()
    private val titleList : MutableList<String> = ArrayList()
    private val registeredFragments = SparseArray<Fragment>()

    override fun getItem(p0: Int) = fragmentList[p0]

    override fun getCount() = fragmentList.size

    fun addFragment(fragment: Fragment, title: String) {
        fragmentList.add(fragment)
        titleList.add(title)
    }

    override fun getPageTitle(position: Int) = titleList[position]

    override fun instantiateItem(container: ViewGroup, position: Int): Any {
        val fragment = super.instantiateItem(container, position) as Fragment
        registeredFragments.put(position, fragment)

        return fragment
    }

    override fun destroyItem(container: ViewGroup, position: Int, `object`: Any) {
        registeredFragments.remove(position)
        super.destroyItem(container, position, `object`)
    }

    fun getRegisteredFragment(pos: Int) = registeredFragments[pos]
}
```

```kotlin
private fun createFragments(adapter: MyViewPagerAdapter) {
    val melbourne = initFragment( city: "Melbourne", lat: -37.50, lon: 145.01)
    val sydney = initFragment( city: "Sydney", lat: -33.86, lon: 151.20)
    val canberra = initFragment( city: "Canberra", lat: 35.28, lon: 149.13)

    adapter.addFragment(melbourne, title: "Melbourne")
    adapter.addFragment(sydney, title: "Sydney")
    adapter.addFragment(canberra, title: "Canberra")

    viewPager.addOnPageChangeListener(object : ViewPager.OnPageChangeListener {
        override fun onPageScrollStateChanged(p0: Int) { }

        override fun onPageScrolled(p0: Int, p1: Float, p2: Int) {
            currentFragment = adapter.getRegisteredFragment(p0) as InfoView
        }

        override fun onPageSelected(p0: Int) { }
    })

    viewPager.adapter = adapter
    tabs.setupWithViewPager(viewPager)
}
```
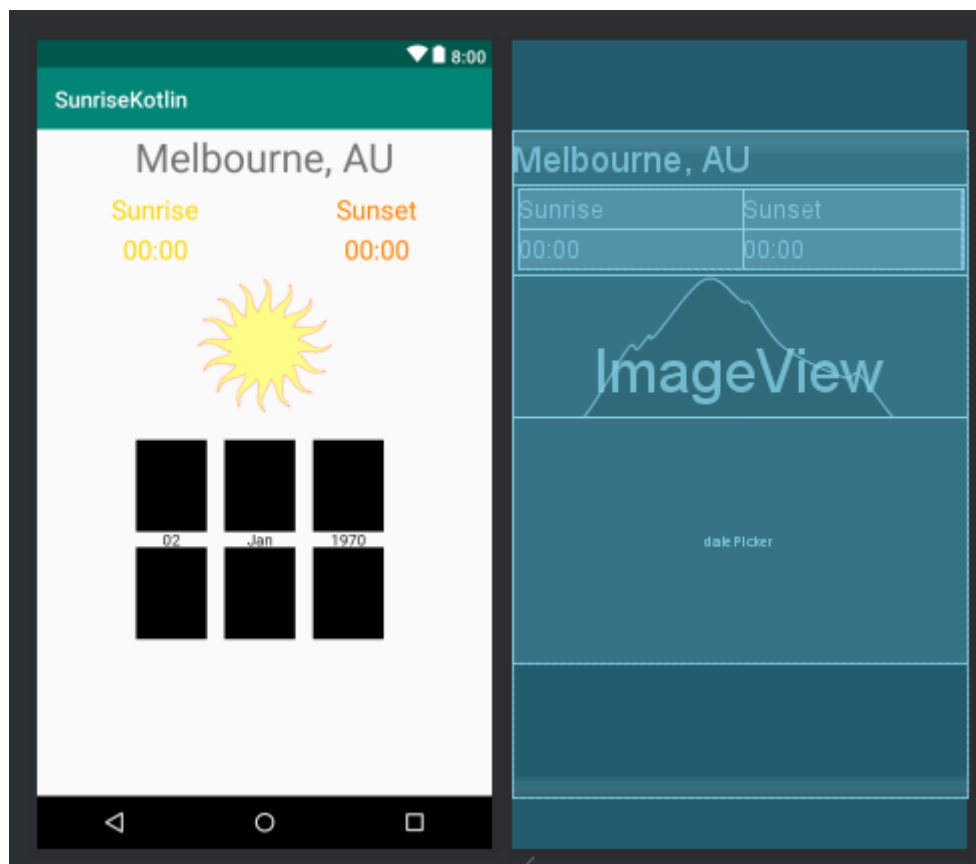
Figure 3: Code related to the fragments in the main activity

3

Figure 4: Fragment used in the main activity