

Mobile Programming

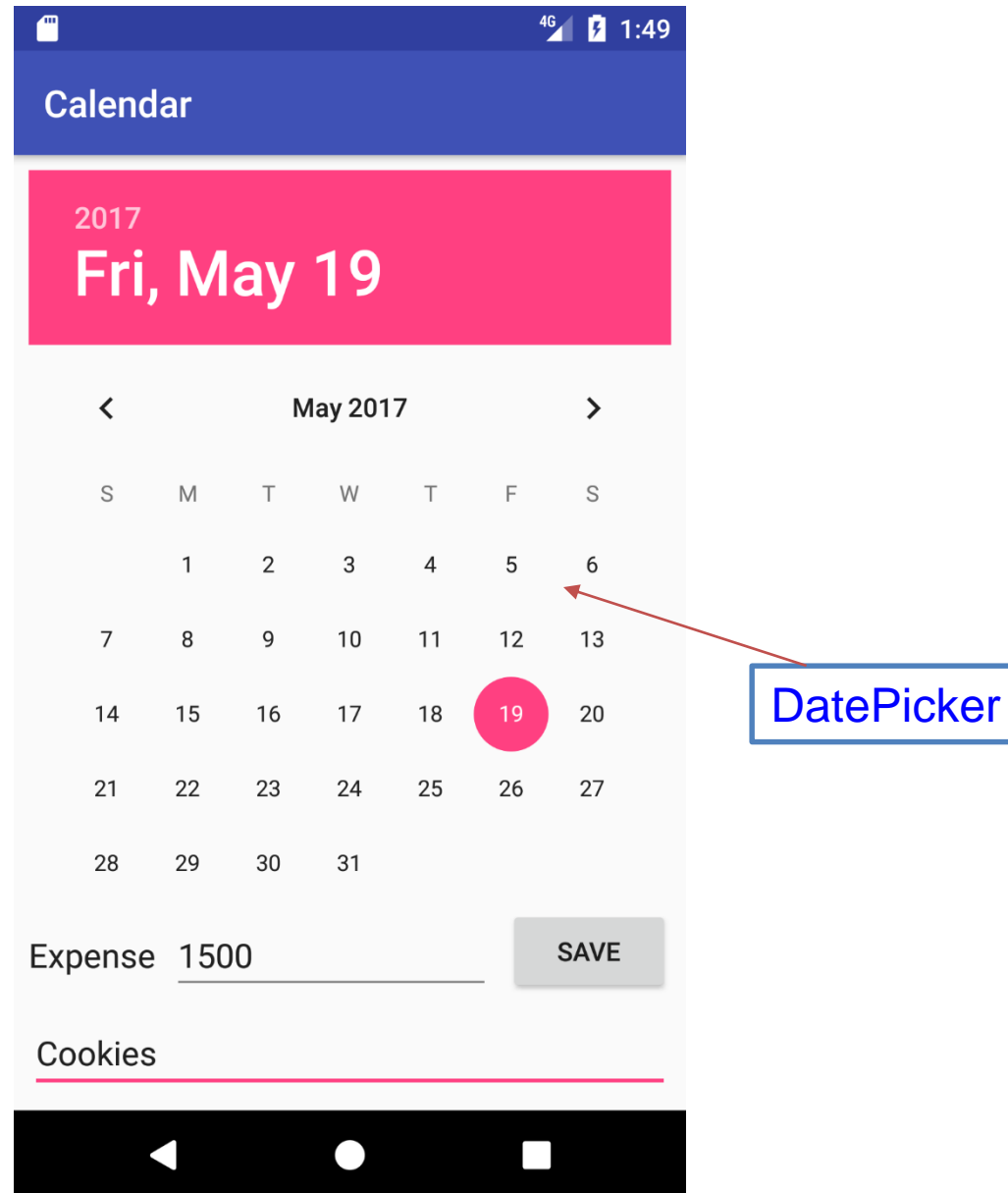
Lec 9. Calendar App, Saving Data



Ewha Womans University

Simple calendar app, saving expense & memo

2



Calendar

2017
Fri, May 19

< May 2017 >

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Expense 1500

Cookies

EditText : inputType

3

EditText

inputType ...

hint

18	19	20	21	22	23	24
25	26	27	28	29	30	31

Expense

Memo

SAVE

EditText

inputType

hint

inputType

☐ none

☒ text

☐ textCapCharacters

☐ textCapWords

☐ textCapSentences

☐ textAutoCorrect

☐ textAutoComplete

☐ textMultiLine

Saving Data in Android

- **Saving to Key-Value Sets**

- Saves (key, value) pairs
- e.g. (“high score”, 1023), (“enable sync”, on)
- Stored in internal storage

- **Saving to files**

- general data writing/reading from/to files
- Stored in Internal or External storage

- **Internal**

- always available
- accessible by only your app
- uninstall app → remove files
- no permission required

- **External**

- not always available
- readable by any app
- files remains
- permission required

- **Saving Data in SQL**

- writing to a local database

Save/Load data with SharedPreferences

5

```
var pref = getSharedPreferences("diary", MODE_PRIVATE)
```

DB 이름

<Save>

```
var data1 = "The data to be stored"
var data2 = "Another data to be stored"

var edit = pref.edit()

edit.putString("key1", data1)
edit.putString("key2", data2)

edit.commit()
```

(key, data) 형태로 저장

<Load>

```
var data1 = pref.getString("key1", "if no key found")
var data2 = pref.getString("key2", "this will be data")
```

date

key

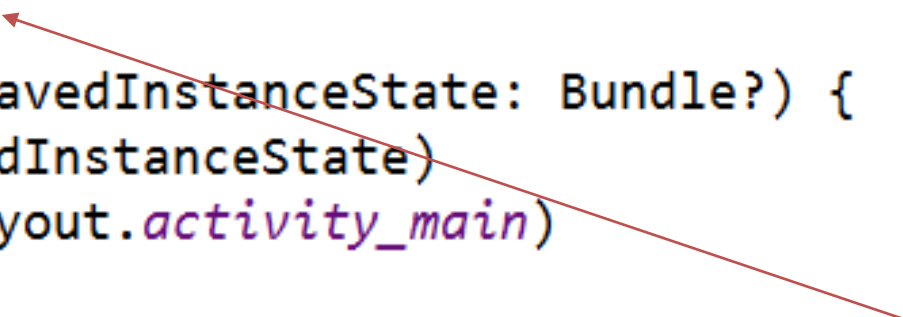
key가 없을 때
default value

(1) Calendar App saving to Key-Value

6

```
class MainActivity : AppCompatActivity(),  
    DatePicker.OnDateChangeListener {  
  
    override fun onCreate(savedInstanceState: Bundle?) {  
        super.onCreate(savedInstanceState)  
        setContentView(R.layout.activity_main)  
  
        date.init(date.year, date.month, date.dayOfMonth, this)  
    }  
}
```

Listener



```
override fun onDateChanged(view: DatePicker, y: Int, m: Int, d: Int) {  
  
    var ymd = "${date.year}_${date.dayOfMonth}_${date.dayOfMonth}"  
        2017_5_19  
    var pref = getSharedPreferences("diary", MODE_PRIVATE)  
  
    expense.setText( pref.getString(ymd+"e", "") )  
    memo.setText( pref.getString(ymd+"m", "") )  
    -----  
    -----  
} default  
  
fun cmd_save(view : View) {  
  
    var ymd = "${date.year}_${date.dayOfMonth}_${date.dayOfMonth}"  
  
    var pref = getSharedPreferences("diary", MODE_PRIVATE)  
    var edit = pref.edit()  
  
    edit.putString(ymd+"e", expense.text.toString())  
    edit.putString(ymd+"m", memo.text.toString())  
    -----  
    -----  
    edit.commit()  
} key 2017_5_19m value
```

Variable in String

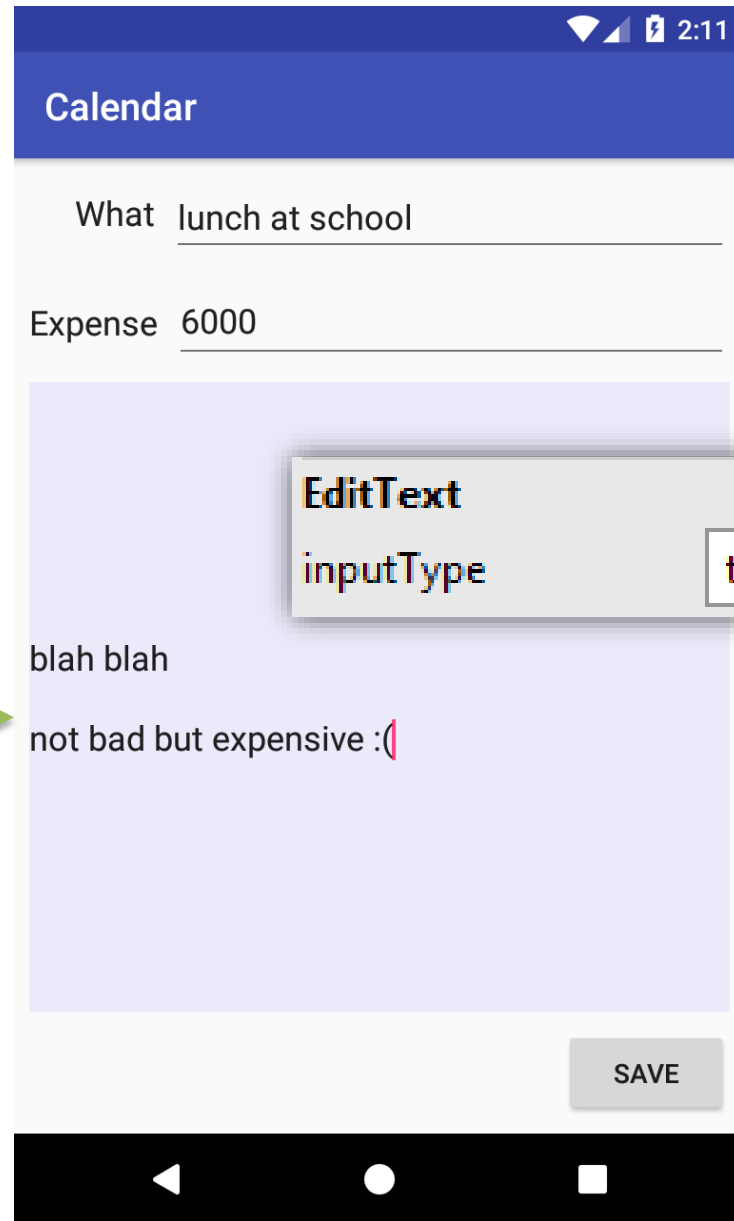
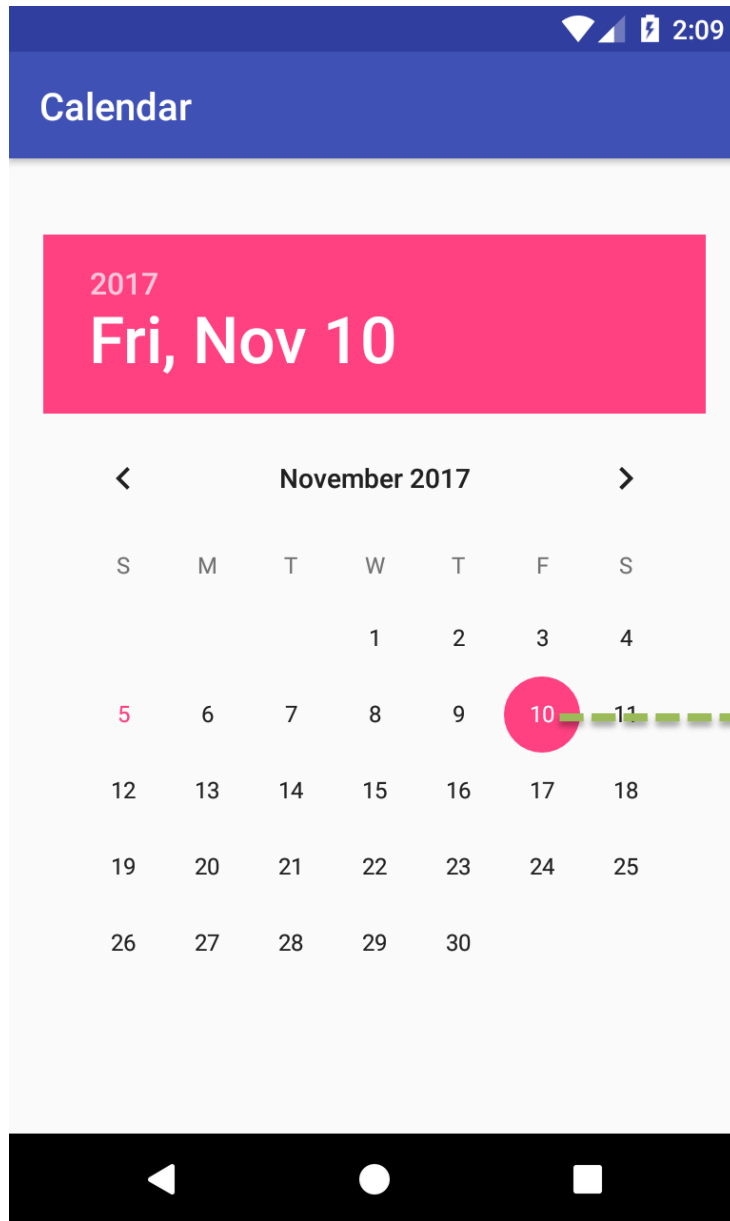
```
var a = 123  
var b = 1.5  
  
var str = "a is $a, and b is $b"
```

```
var ymd = "${date.year}_${date.dayOfMonth}_${date.dayOfMonth}"
```

```
var ymd = "" + date.year + "_" + date.dayOfMonth + "_" + date.dayOfMonth
```


(2) Exercise : Separate Activities

9



MainActivity

10

```
var ymd = ""
```

Memo activity에서의 공유를 위해 class 밖으로
일종의 global variable

```
class MainActivity : AppCompatActivity(),  
    DatePicker.OnDateChangedListener {  
  
    override fun onCreate(savedInstanceState: Bundle?) {  
        super.onCreate(savedInstanceState)  
        setContentView(R.layout.activity_main)  
  
        date.init(date.year, date.month, date.dayOfMonth, this)  
    }
```

```
    override fun onChanged(view: DatePicker,  
                            y: Int, m: Int, d: Int) {
```

Memo activity에서 공유

```
        ymd = "${date.year}_${date.dayOfMonth}_${date.dayOfMonth}"
```

```
        var intent = Intent(this, Memo::class.java)  
        startActivity(intent)
```

```
    }
```

```
}
```

HW) Memo (activity)

11

```
class Memo : AppCompatActivity() {  
    override fun onCreate(savedInstanceState: Bundle?) {...}  
    fun cmd_save(view : View) {...}  
}
```

```
override fun onCreate(savedInstanceState: Bundle?) {  
    super.onCreate(savedInstanceState)  
    setContentView(R.layout.activity_memo)
```

```
    var pref = getSharedPreferences("diary", MODE_PRIVATE)
```

```
    what.setText( pref.getString(ymd+"w", "") )
```

```
    expense.setText( pref.getString(ymd+"e", "") )
```

```
    memo.setText( pref.getString(ymd+"m", "") )
```

```
}
```

MainActivity의 variable

```
fun cmd_save(view : View) {
```

```
}
```