

Lab1: Mobile Application Development

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1 Task1: Random Number

```
class MainActivity : AppCompatActivity()
    override fun onCreate(savedInstanceState: Bundle?)
    super.onCreate(savedInstanceState)
    setContentView(R.layout.activity_main)
    val random = Random()
    var numToGuess = random.nextInt(1000)
    fun validate (view: View)
    var inputField = findViewById<EditText>(R.id.editTextNumber2)
    var textLabel = findViewById<TextView>(R.id.textView3)
    val number = Integer.parseInt(inputField.text.toString())
    if(number > numToGuess)
    textLabel.text = "Your guess is too High"
    else if(number < numToGuess)
    textLabel.text = "Your guess is too Low"
    else
    textLabel.text = "Hoorah!! ... You guessed it
    correctly"
```

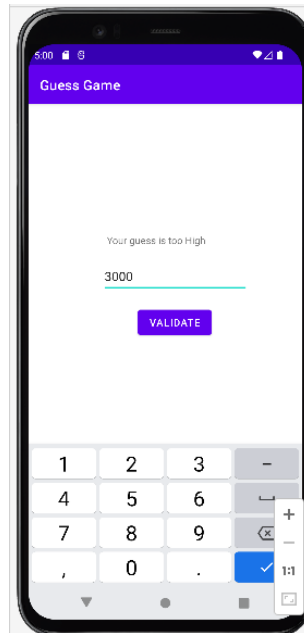


Figure 1: Random number game

2 Task2: Guess Game

[illegible]

```




```

```
val random= java.util.Random()
```

```

val icons: TypedArray = resources.obtainTypedArray(R.array.icons)
img1?.setOnClickListener { @View
    val drawable: Drawable? = icons.getDrawable(imgIndex)
    // img1.setVisibility(View.INVISIBLE)
    img1?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
    checks[0]=true
}
img2?.setOnClickListener { @View
    img2?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
    checks[1]=true
}
img3?.setOnClickListener { @View
    img3?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
    checks[2]=true
}
img4?.setOnClickListener { @View
    img4?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
    checks[3]=true
}
img5?.setOnClickListener { @View
    img5?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img6?.setOnClickListener { @View
    img6?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}

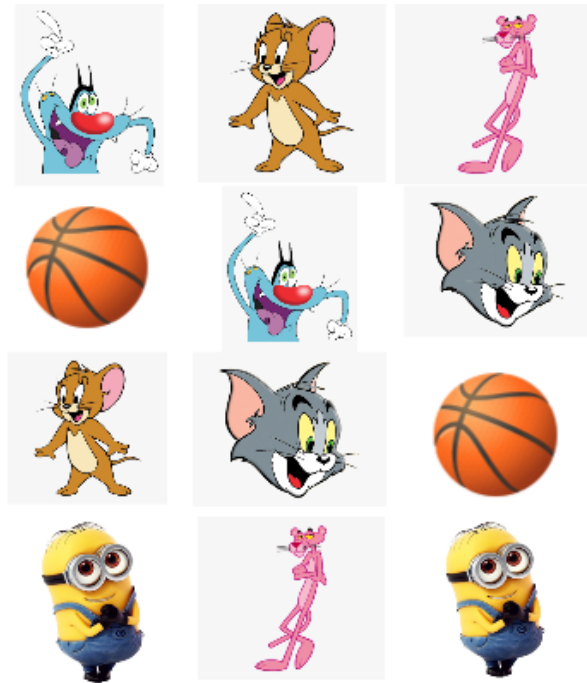
img7?.setOnClickListener { @View
    img7?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img8?.setOnClickListener { @View
    img8?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img9?.setOnClickListener { @View
    img9?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img10?.setOnClickListener { @View
    img10?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img11?.setOnClickListener { @View
    img11?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img12?.setOnClickListener { @View
    img12?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img13?.setOnClickListener { @View
    img13?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img14?.setOnClickListener { @View
    img14?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}

img15?.setOnClickListener { @View
    img15?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img16?.setOnClickListener { @View
    img16?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img17?.setOnClickListener { @View
    img17?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img18?.setOnClickListener { @View
    img18?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img19?.setOnClickListener { @View
    img19?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img20?.setOnClickListener { @View
    img20?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img21?.setOnClickListener { @View
    img21?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img22?.setOnClickListener { @View
    img22?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}

img23?.setOnClickListener { @View
    img23?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}
img24?.setOnClickListener { @View
    img24?.setImageResource(icons.getResourceId(icons.getIndex(random.nextInt( bound: 11)), defValue: 0))
}

// val myDrawable = resources.
// var myDrawable : Drawable = getResources().getDrawable(R.drawable.imageView)
//println("marks[item]: "+ )
if (checks[0] == true)
{
    for(item in checks.indices)
    {
        if (checks[item+1] == true)
        {
            if(img1?.getDrawable() == img[item+1]?.getDrawable() )
            {
                img1?.setVisibility(View.INVISIBLE)
                img[item+1]?.setVisibility(View.INVISIBLE)
            }
        }
    }
}
}

```



3 Task3: Mr Potato

```
class MainActivity : AppCompatActivity()
    override fun onCreate(savedInstanceState: Bundle?)
    super.onCreate(savedInstanceState)
    setContentView(R.layout.activity_main)
    var hat = false
    var arms = false
    var ears = false
    var eyebrows = false
    var eyes = false
    var glasses = false
    var moustaches = false
    var mouth = false
    var nose = false
    var shoes = false
    fun hatClick(view: View)
    var img = findViewById<ImageView>(R.id.hat)
    if(hat == true)
    img.setImageResource(0)
    hat = false
    else
    img.setImageResource(R.drawable.hat)
    hat = true
    fun armsClick(view: View)
    var img = findViewById<ImageView>(R.id.arms)
    if(arms == true)
```

```

img.setImageResource(0)
arms = false
else
img.setImageResource(R.drawable.arms)
arms = true
fun earsClick(view: View)
var img = findViewById<ImageView>(R.id.ears)
if(ears == true)
img.setImageResource(0)
ears = false
else
img.setImageResource(R.drawable.ears)
ears = true
fun eyebrowsClick(view: View)
var img = findViewById<ImageView>(R.id.eyebrows)
if(eyebrows == true)
img.setImageResource(0)
eyebrows = false
else
img.setImageResource(R.drawable.eyebrows)
eyebrows = true
fun eyesClick(view: View)
var img = findViewById<ImageView>(R.id.eyes)
if(eyes == true)
img.setImageResource(0)
eyes = false
else
img.setImageResource(R.drawable.eyes)
eyes = true
fun glassesClick(view: View)
var img = findViewById<ImageView>(R.id.glasses)
if(glasses == true)
img.setImageResource(0)
glasses = false
else
img.setImageResource(R.drawable.glasses)
glasses = true
fun moustachesClick(view: View)
var img = findViewById<ImageView>(R.id.mustache)
if(moustaches == true)
img.setImageResource(0)
moustaches = false
else
img.setImageResource(R.drawable.moustache)
moustaches = true
fun mouthClick(view: View)
var img = findViewById<ImageView>(R.id.mouth)
if(mouth == true)
img.setImageResource(0)
mouth = false
else
img.setImageResource(R.drawable.mouth)
mouth = true
fun noseClick(view: View)
var img = findViewById<ImageView>(R.id.nose)
if(nose == true)

```

```

img.setImageResource(0)
nose = false
else
img.setImageResource(R.drawable.nose)
nose = true
fun shoesClick(view: View)
var img = findViewById<ImageView>(R.id.shoes)
if(shoes == true)
img.setImageResource(0)
shoes = false
else
img.setImageResource(R.drawable.shoes)
shoes = true

```

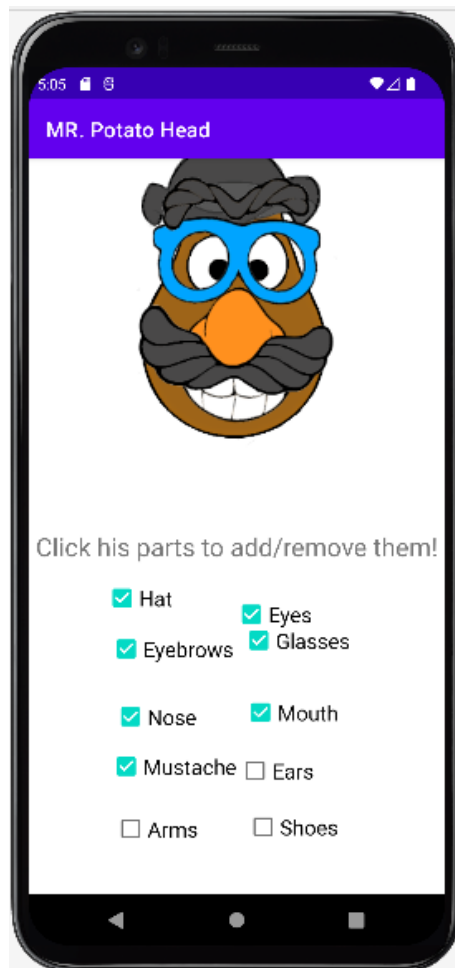


Figure 2: Mr Potato