Lista 1º bimestre – Enzo Dante

Ex1:

```
package com.example.lista1_ex1

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var button: Button = findViewById(R.id.button)

        button.setOnClickListener {
            var nome: EditText = findViewById(R.id.editText0)
            var nota1: EditText = findViewById(R.id.editText1)
            var nota2: EditText = findViewById(R.id.editText2)

            var media = (nota1.text.toString().toFloat() +
nota2.text.toString().toFloat()) / 2

            var text: TextView = findViewById(R.id.texto)
            if(media >= 6)
                text.text = "${nome.text.toString()} foi aprovado!
média: ${media.toString()}"
            else
                text.text = "${nome.text.toString()} foi reprovado!
média: ${media.toString()}"

        }
    }

}
```

Ex2:

```
package com.example.lista1_ex2

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var button: Button = findViewById(R.id.button)

        button.setOnClickListener {
            var num: EditText = findViewById(R.id.editText1)
            var tabuada: TextView = findViewById(R.id.texto)
```

```
            tabuada.text = ""

            var texts: String = ""

            for (i in 0..10){
                texts += "${num.text.toString()} * ${i} =
${(num.text.toString().toInt() * i).toString()}\n"
            }
            tabuada.text = texts
        }

    }
}
```

Ex3:

```
package com.example.lista1_ex3

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.CheckBox
import android.widget.EditText
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var checkbox: CheckBox = findViewById(R.id.checkBox)

        checkbox.setOnCheckedChangeListener { buttonView, isChecked ->
            var texto: TextView = findViewById(R.id.texto)
            if(isChecked){
                var msg: EditText = findViewById(R.id.editText1)
                texto.text = msg.text.toString().uppercase()

            }
            else
                texto.text = ""
        }
    }
}
```

Ex4:

```
package com.example.lista1_ex4

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.CheckBox
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var checbox1: CheckBox = findViewById(R.id.checkBox1)
```

```
        var checbox2: CheckBox = findViewById(R.id.checkBox2)
        var checbox3: CheckBox = findViewById(R.id.checkBox3)
        var checbox4: CheckBox = findViewById(R.id.checkBox4)
        var checbox5: CheckBox = findViewById(R.id.checkBox5)

        var texto: TextView = findViewById(R.id.texto)
        texto.text = ""
        var valor: Float = 0.0F

        checbox1.setOnCheckedChangeListener { buttonview, isChecked ->
            if(isChecked){
                valor += 20.00F
                texto.text = "R$ ${valor}"
            }
            else{
                valor -= 20.00F
                texto.text = "R$ ${valor}"
            }

        }

        checbox2.setOnCheckedChangeListener { buttonview, isChecked ->
            if(isChecked){
                valor += 5.95F
                texto.text = "R$ ${valor}"
            }
            else{
                valor -= 5.95F
                texto.text = "R$ ${valor}"
            }
        }

        checbox3.setOnCheckedChangeListener { buttonview, isChecked ->
            if(isChecked){
                valor += 76.78F
                texto.text = "R$ ${valor}"
            }
            else{
                valor -= 76.78F
                texto.text = "R$ ${valor}"
            }
        }

        checbox4.setOnCheckedChangeListener { buttonview, isChecked ->
            if(isChecked){
                valor += 9.38F
                texto.text = "R$ ${valor}"
            }
            else{
                valor -= 9.38F
                texto.text = "R$ ${valor}"
            }
        }

        checbox5.setOnCheckedChangeListener { buttonview, isChecked ->
            if(isChecked){
                valor += 12.00F
                texto.text = "R$ ${valor}"
            }
            else{
                valor -= 12.00F
```

```
                texto.text = "R$ ${valor}"
            }
        }
    }
}
```

Ex5:

```
package com.example.lista1_ex5

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.EditText
import android.widget.RadioButton
import android.widget.RadioGroup
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var radiobutton: RadioGroup = findViewById(R.id.radiogroup1)

        radiobutton.setOnCheckedChangeListener { radioGroup, i ->
            var salario: EditText = findViewById(R.id.editText1)
            var texto: TextView = findViewById(R.id.texto)
            // i é o id do componente
            if(i == 2131231060){
                texto.text = "novo salário é\nR$
${salario.text.toString().toFloat() +
(salario.text.toString().toFloat() * 0.40)}"
            }
            else if(i == 2131231061){
                texto.text = "novo salário é\nR$
${salario.text.toString().toFloat() +
(salario.text.toString().toFloat() * 0.45)}"
            }else{
                texto.text = "novo salário é\nR$
${salario.text.toString().toFloat() +
(salario.text.toString().toFloat() * 0.50)}"
            }

        }

    }
}
```

Ex6:

```
package com.example.lista1_ex6

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.RatingBar
import android.widget.TextView
```

```
class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var total = 0
        var valores = 0.0F

        var button: Button = findViewById(R.id.button)
        button.setOnClickListener {
            var texto: TextView = findViewById(R.id.texto)
            var num: EditText = findViewById(R.id.editText1)

            if(num.text.toString().toFloat() >= 0 &&
num.text.toString().toFloat() <= 10) {
                valores += num.text.toString().toFloat()
                total++

                var ratingbar: RatingBar =
findViewById(R.id.ratingBar)
                ratingbar.rating = valores / total

                texto.text = "Você digitou ${total.toString()} vezes"
            }
            else
                texto.text = "Digite um valor entre 0 e 10!"

        }
    }
}
```

Ex7:

```
package com.example.lista1_ex7

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.view.View
import android.widget.Button
import android.widget.EditText
import android.widget.LinearLayout
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var button: Button = findViewById(R.id.buton)
        button.setOnClickListener {
            var texto: EditText = findViewById(R.id.editText1)
            criarText(texto)

        }

    }

    fun criarText(msg: EditText){
        var linearLayout: LinearLayout =
findViewById(R.id.linearLayout)
```

```
        var Textview = TextView(this)
        Textview.layoutParams = LinearLayout.LayoutParams(
            LinearLayout.LayoutParams.MATCH_PARENT,
            LinearLayout.LayoutParams.WRAP_CONTENT
        )
        Textview.text = msg.text.toString()
        linearLayout.addView(Textview)

    }
}
```

Ex8:

```
package com.example.lista1_ex8

import android.content.Intent
import android.graphics.Color
import android.icu.text.ListFormatter.Width
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.GridLayout
import android.widget.LinearLayout
import android.widget.TextView

class MainActivity : AppCompatActivity() {



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

        var btn: Button = findViewById(R.id.btn)
        btn.setOnClickListener {
            iniciarJogo()
        }
    }

    fun iniciarJogo(){
        val layoutPrincipal: LinearLayout =
findViewById(R.id.linearLayout)
        layoutPrincipal.removeAllViews()

        for(j in 1..5){
            val linearLayout = LinearLayout(this)
            linearLayout.orientation = LinearLayout.HORIZONTAL

            for(i in 1..4){
                val button = Button(this)
                button.layoutParams = LinearLayout.LayoutParams(
                    LinearLayout.LayoutParams.WRAP_CONTENT,
                    LinearLayout.LayoutParams.WRAP_CONTENT
                )
                button.text = "-"
                button.setOnClickListener {
                    var numB = (0..5).random()
                    button.isEnabled = false
                    if(numB == 1){
                        button.setBackgroundColor(Color.RED)
```

```
                    }else{
                        button.setBackgroundColor(Color.GREEN)
                    }
                }
                linearLayout.addView(button)
            }

            layoutPrincipal.addView(linearLayout)
        }
    }
}
```

Ex9:

```
package com.example.lista1_ex9

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.LinearLayout
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    var vezesJogada: Int = 0
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
        var textom: TextView = findViewById(R.id.textov)

        var xvez: Boolean
        var btn1: Button = findViewById(R.id.btn1)

        btn1.setOnClickListener {
            textom.text = ""
            vezesJogada = 0
            xvez = true
            criarTabuleiro(xvez)
        }

    }
    fun criarTabuleiro(xvez:Boolean){
        var vez = xvez
        var tabuleiro = Array(3) {IntArray(3)}

        val layoutPrincipal: LinearLayout = findViewById(R.id.linear1)
        layoutPrincipal.removeAllViews()

        for(j in 1..3){
            val linearLayout = LinearLayout(this)
            linearLayout.orientation = LinearLayout.HORIZONTAL

            for(i in 1..3){
                val button = Button(this)
                button.layoutParams = LinearLayout.LayoutParams(
                    LinearLayout.LayoutParams.WRAP_CONTENT,
                    LinearLayout.LayoutParams.WRAP_CONTENT
                )
                button.text = "-"
                button.setOnClickListener {
                    vezesJogada++
```

```
                    if(vez){
                        button.text = "X"
                        vez = false
                        tabuleiro[j-1][i-1] = 1
                    }else{
                        button.text = "O"
                        vez = true
                        tabuleiro[j-1][i-1] = 2
                    }
                    button.isEnabled = false
                    analisarV(tabuleiro)
                }
                linearLayout.addView(button)

            }
            layoutPrincipal.addView(linearLayout)
        }
    }

    fun analisarV(ta: Array<IntArray>){
        var textom: TextView = findViewById(R.id.textov)
        //empate
        if(vezesJogada == 9){
            textom.text = "Empate!"
        }
        if(vezesJogada >= 5){
            //diagonais
            if(ta[0][0] == ta[1][1] && ta[1][1] == ta[2][2]){
                if(ta[0][0] == 1)
                    textom.text = "d1 Vitória de X"
                else
                    textom.text = "d1 Vitória de O"
            }

            if(ta[0][2] == ta[1][1] && ta[1][1] == ta[2][0]){
                if(ta[0][2] == 1)
                    textom.text = "d2 Vitória de X"
                else
                    textom.text = "d2 Vitória de O"
            }

            //horizontal
            for(i in 0..2){
                if(ta[i][0] == ta[i][1] && ta[i][1] == ta[i][2]){
                    if(ta[i][0] == 1)
                        textom.text = "h Vitória de X"
                    else
                        textom.text = "h Vitória de O"
                }
            }
            //vertical
            for(i in 0..2){
                if(ta[0][i] == ta[1][i] && ta[1][i] == ta[2][i]){
                    if(ta[0][i] == 1)
                        textom.text = "v Vitória de X"
                    else
                        textom.text = "v Vitória de O"
                }
            }
        }
```

```
    }
}
```

Ex10:

```
package com.example.lista1_ex10

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var button: Button = findViewById(R.id.button)

        button.setOnClickListener {
            var num: EditText = findViewById(R.id.edittext1)
            var texto: TextView = findViewById(R.id.text)
            var x = bin(num.text.toString())
            texto.text = x.toString()
        }

    }
    fun bin(n: String): String{
        var num = n.toInt()
        var binario = ""
        var binarioreverso = ""

        while (num != 0){
            binario += "${(num%2).toString()}"
            num = num/2
        }
        for(i in binario.length - 1 downTo 0){
            binarioreverso += binario[i]
        }

        return binarioreverso
    }
}
```

Ex11:

```
package com.example.lista1_ex11

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.TextView

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
```

```
        var button: Button = findViewById(R.id.button)

        button.setOnClickListener {
            var num: EditText = findViewById(R.id.edittext1)
            var text: TextView = findViewById(R.id.text)

            var numero = num.text.toString().toInt()
            var hex = numero.toString(16)
            text.text = hex.uppercase()
        }
    }
}
```

Ex12: