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Отчёт по лабораторной работе №5
по курсу «ПиКЯП»

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Тема: ознакомиться с кнопками, анимациями, понять, что такое state, для чего используется. Попробовать более сложные layouts.

Код программы:

MainActivity.kt

```
package com.example.basiccodelab

import android.os.Bundle
import androidx.activity.ComponentActivity
import androidx.activity.compose.setContent
import androidx.activity.enableEdgeToEdge
import androidx.compose.animation.core.Spring
import androidx.compose.foundation.layout.fillMaxSize
import androidx.compose.foundation.layout.padding
import androidx.compose.material3.MaterialTheme
import androidx.compose.material3.Surface
import androidx.compose.material3.Text
import androidx.compose.runtime.Composable
import androidx.compose.ui.Modifier
import androidx.compose.ui.tooling.preview.Preview
import com.example.basiccodelab.ui.theme.BasicCodelabTheme
import androidx.compose.foundation.layout.Column
import androidx.compose.foundation.layout.fillMaxWidth
import androidx.compose.ui.unit.dp
import androidx.compose.foundation.layout.Row
import androidx.compose.material3.ElevatedButton
import androidx.compose.runtime.mutableStateOf
import androidx.compose.runtime.remember
import androidx.compose.foundation.layout.Arrangement
import androidx.compose.material3.Button
import androidx.compose.runtime.getValue
import androidx.compose.runtime.setValue
import androidx.compose.ui.Alignment
import androidx.compose.foundation.lazy.LazyColumn
import androidx.compose.foundation.lazy.items
import androidx.compose.runtime.saveable.rememberSaveable
import androidx.compose.animation.core.animateDpAsState
import androidx.compose.animation.core.spring
import androidx.compose.ui.unit.coerceAtLeast

//if you die nothing in my life would change

class MainActivity : ComponentActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContent {
            BasicCodelabTheme {
                MyApp(modifier = Modifier.fillMaxSize())
            }
        }
    }
}

@Composable
fun OnboardingScreen(
    onContinueClicked: () -> Unit,
    modifier: Modifier = Modifier){
```

```

Column( modifier = modifier.fillMaxSize(),
    verticalArrangement = Arrangement.Center,
    horizontalAlignment = Alignment.CenterHorizontally,
){
    Text("Welcome to the basic code lab")
    Button(
        modifier = modifier.padding(vertical = 24.dp),
        onClick = onContinueClicked
    ) {
        Text("Continue")
    }
}

}

@Composable
fun MyApp(modifier: Modifier = Modifier){
    var shouldShowOnboarding by rememberSaveable { mutableStateOf(true) }

    Surface(modifier) {
        if (shouldShowOnboarding){
            OnboardingScreen(onContinueClicked = { shouldShowOnboarding
=false})
        } else{
            Greetings()
        }
    }
}

@Composable
private fun Greetings(
    modifier: Modifier = Modifier,
    names: List<String> = List(1000){"$it"}
){
    LazyColumn (modifier = modifier.padding(vertical = 4.dp)) {
        items(items = names){
            name -> Greeting(name = name)
        }
    }
}

@Composable
private fun Greeting(name: String, modifier: Modifier = Modifier) {
    var expended by rememberSaveable{ mutableStateOf(false) }
    val extraPadding by animateDpAsState (
        if (expended) 48.dp else 0.dp,
        animationSpec = spring(
            dampingRatio = Spring.DampingRatioHighBouncy,
            stiffness = Spring.StiffnessLow
        )
    )
    Surface(
        color = MaterialTheme.colorScheme.primary,
        modifier = modifier.padding(10.dp)
    ) {
        Row(modifier = modifier.padding(24.dp)) {
            Column(modifier = modifier
                .weight(1f)
                .padding(bottom = extraPadding.coerceAtLeast(0.dp))

            ) {

```

```

        Text(text = "Hello")
        Text(text = name, style =
MaterialTheme.typography.headlineMedium)
    }
    ElevatedButton(
        onClick = { expended = !expended }
    ) {
        Text(if (expended) "Show less" else "Show more")
    }
}
}
}

@Preview
@Composable
fun MyAppPreview() {
    BasicCodelabTheme {
        MyApp(modifier.fillMaxSize())
    }
}

@Preview(showBackground = true, widthDp = 320, heightDp = 320)
@Composable
fun OnboardingPreview() {
    BasicCodelabTheme {
        OnboardingScreen(onContinueClicked = {})
    }
}

@Preview(showBackground = true, widthDp = 320)
@Composable
fun GreetingsPreview() {
    BasicCodelabTheme {
        Greetings()
    }
}
}

```

Результат программы:

Базовое «приветствие» пользователя

11:00



Welcome to the basic code lab

Continue

11:01



Hello
0

Show more

Hello
1

Show more

Hello
2

Show more

Hello
3

Show more

Hello
4

Show more

Hello
5

Show more

Hello
6

Show more

11:01



Hello
0

Show less

Hello
1

Show more

Hello
2

Show less

Hello
3

Show less

Hello
4

Show more

Hello
5

Show more