SESSION 1:JETPACK COMPOSE

(BASICS OF UI)

* 1st code generated by android studio:

class MainActivity : ComponentActivity() {  
    override fun onCreate(savedInstanceState: Bundle?) {  
        super.onCreate(savedInstanceState)  
        setContent {  
            BasicsCodelabTheme {  
                // A surface container using the 'background' color from the theme  
                Surface(  
                    modifier = Modifier.fillMaxSize(),  
                    color = MaterialTheme.colorScheme.background  
                ) {  
                    Greeting("Android")  
                }  
            }  
        }  
    }  
}  
  
@Composable  
fun Greeting(name: String, modifier: Modifier = Modifier) {  
    Text(  
        text = "Hello $name!",  
        modifier = modifier  
    )  
}  
  
@Preview(showBackground = true)  
@Composable  
fun GreetingPreview() {  
    BasicsCodelabTheme {  
        Greeting("Android")  
    }  
}

* SETTING NEW BACKGROUND COLOR:

@Composable

fun Greeting() {

Surface(

modifier = Modifier.fillMaxSize(),

color = MaterialTheme.colorScheme.primary

) {

Text(

text = "Hello GDSC")

}

}

* ADD SOME SPACE AROUND TEXT: (you have to import padding and dp)

import androidx.compose.foundation.layout.padding  
import androidx.compose.ui.unit.dp  
// ...  
  
@Composable  
fun Greeting(name: String, modifier: Modifier = Modifier) {  
    Surface(color = MaterialTheme.colorScheme.primary) {  
        Text(

text = "Hello GDSC",

modifier = modifier.padding(24.dp)  
        )  
    }  
}

* Introduction to column:(import Column)

import androidx.compose.foundation.layout.Column  
// ...  
  
@Composable

fun Greeting() {

Surface(

modifier = Modifier.fillMaxSize(),

color = MaterialTheme.colorScheme.primary

) {

Column {

Text(

text = "Hello"

)

Text(

text = "GDSC"

)

}

}

}

* Setting common width of smart phone to the preview:

@Preview(showBackground = true, widthDp = 320)  
@Composable  
fun GreetingPreview( ) {  
    BasicsCodelabTheme {  
        Greeting( )  
    }  
}

* Introduction to Row:

import androidx.compose.foundation.layout.Row

@Composable

fun Greeting() {

Surface(

modifier = Modifier

.fillMaxWidth()

.padding(vertical = 4.dp, horizontal = 8.dp)

,

color = MaterialTheme.colorScheme.primary

) {

Row{

Column {

Text(

text = "Hello"

)

Text(

text = "GDSC"

)

}

}

}

}

* Adding button:

import androidx.compose.material3.ElevatedButton

@Composable

fun Greeting() {

Surface(

modifier = Modifier

.fillMaxWidth()

.padding(vertical = 4.dp, horizontal = 8.dp)

,

color = MaterialTheme.colorScheme.primary

) {

Row{

Column( modifier = Modifier

.weight(1f)

) {

Text(

text = "Hello"

)

Text(

text = "GDSC"

)

}

ElevatedButton(onClick = { /TODO/ }) {

Text(text = "Show More")

}

}

}

}

* Interactive button:

@Composable

fun Greeting() {

var expanded = remember { mutableStateOf(false) }

Surface(

modifier = Modifier

.fillMaxWidth()

.padding(vertical = 4.dp, horizontal = 8.dp),

color = MaterialTheme.colorScheme.primary

) {

Row {

Column(

modifier = Modifier

.weight(1f)

) {

Text(

text = "Hello"

)

Text(

text = "GDSC"

)

}

ElevatedButton(

onClick = { expanded.value = !expanded.value }

) {

Text(if (expanded.value) "Show Less" else "Show More")

}

}

}

}

* Interactive component and adding some content which will show or hidden

@Composable

fun Greeting() {var expanded by remember { mutableStateOf(false) }

val extraPadding = if (expanded) 48.dp else 0.dp

Surface(

color = MaterialTheme.colorScheme.secondary,

modifier = Modifier

.fillMaxWidth()

.padding(vertical = 4.dp, horizontal = 8.dp)

) {

Row(

modifier = Modifier

.fillMaxWidth()

.padding(24.dp)

) {

Column(

modifier = Modifier

.weight(1f)

.padding(bottom = extraPadding)

) {

Text(text = "Hello World")

if (expanded) {

Text(text = "You son of a", modifier = Modifier.padding(16.dp))

}

}

ElevatedButton(

onClick = { expanded = !expanded }

) {

Text(if (expanded) "Show Less" else "Show More")

}

}

}

}