



F2025 MAD204-01 Java Development for MA (Nevin James)

Exam Answers

Submitted to Nevin James

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MAD204 Final Exam - Entire Answer (Room +).

Kotlin)

1.User Entity

```
@Entity(tableName = "users")
```

```
data class User(
```

```
    @PrimaryKey (autoGenerate = true) val id: Int = 0,
```

```
    val name: String,
```

```
    val email: String,
```

```
    val age: Int
```

```
)
```

2.DAO Interface

```
@Dao
```

```
interface UserDao {
```

Member Oper Members of the current relationship include user, group, and role members.

<|human|>Member Oper The current relationship has members of the form of user, group and role members.

```
Suspension Query Query("SELECT FROM users"): List<|human|>fun getAllUsers():  
Suspension Query Query
```

```
Suspendable query Query(SELECT ) users WHERE id = x): user Where id =:id)  
suspend fun getUserById(id: Int): User?
```

```
}
```

AppDatabase

```
Database(entities = [User::class], version = 1)
```

```
abstract class AppDatabase : RoomDatabase ()
```

```
type abstract userDao: UserDao<|human|>method userDao: UserDao.
```

```
}
```

AddUserActivity

```
class AddUserActivity extends AppCompatActivity () {
```

```
    override onCreate(savedInstanceState Bundle?) {
```

```
super.onCreate(savedInstanceState)
setContentView(R.layout.activityadduser)
btnSave.setOnClickListener {
    lifecycleScope.launch {
        userDao.insertUser(user)
    }
}
}
```

3. Why background threads?

Database tasks are slow. When ran on the main thread, the UI can be frozen and even lead to ANR.

Tasks safely execute in the background on coroutines.

4.

RecyclerView Adapter

RecyclerView is highly efficient in the reuse of views, enhances better use of memory, and is also compatible with huge data sets.

5. User Details Activity

```
val userId = intent.getIntExtra("user_id" -1)
userDao.getUserById(userId) is val user.
tvName.text = user.name
tvEmail.text = user.email
tvAge.text = user.age.toString()
```