

Examen Unidad III - Automatización con GitHub Actions

Curso: Desarrollo de Aplicaciones Móviles

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Repositorio

https://github.com/RodrigoDLCC/SM2_ExamenUnidad3

Evidencias

1. Estructura de carpetas

Seleccionar Administrador: Windows PowerShell

PS C:\Users\HP\Downloads\examen moviles\SM2_ExamenUnidad3> tree /F

Listado de rutas de carpetas

El número de serie del volumen es 224B-7628

C:.

```
.env
.flutter-plugins-dependencies
.gitignore
.metadata
analysis_options.yaml
Conexión al a base de datos creada en firebase.pdf
firebase.json
pubspec.lock
pubspec.yaml
README.md
```

```
.dart_tool
  package_config.json
  package_config_subset
  package_graph.json
  version
  dartpad
    web_plugin_registrant.dart
  flutter_build
```

```
.github
  workflows
    quality-check.yml
```

```
android
  .gitignore
  build.gradle
  gradle.properties
  local.properties
  settings.gradle
```

```
  app
    build.gradle
    google-services.json
```

```
    .cxx
      Debug
        191k655y
          hash_key.txt
```

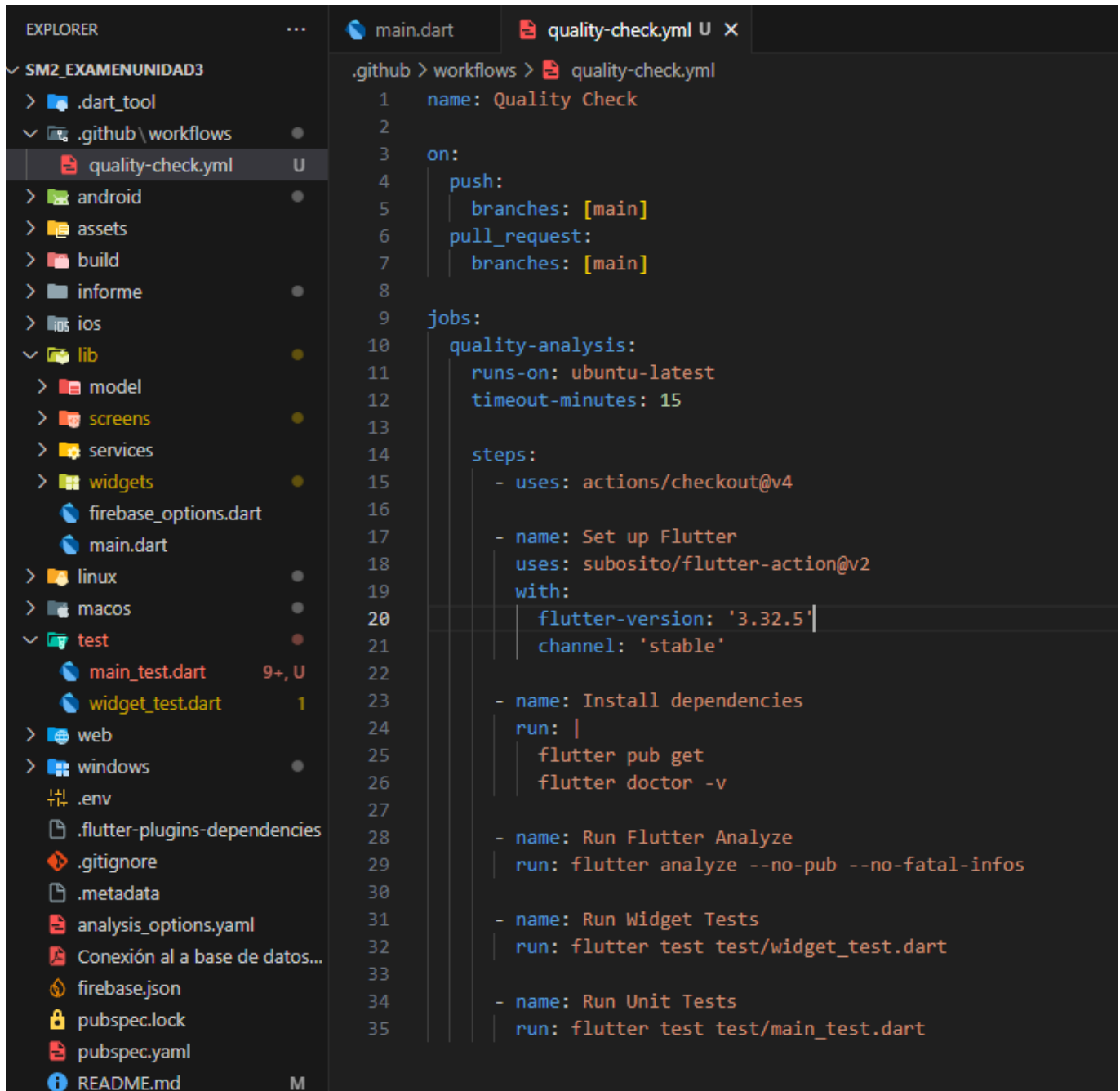
```
        arm64-v8a
          additional_project_files.txt
          android_gradle_build.json
          android_gradle_build_mini.json
          build.ninja
          build_file_index.txt
          CMakeCache.txt
          cmake_install.cmake
          configure_fingerprint.bin
          metadata_generation_command.txt
          prefab_config.json
          symbol_folder_index.txt
```

```
        .cmake
          api
            v1
              query
                client-agp
                  cache-v2
                    cmakeFiles-v1
                      codemodel-v2
              reply
                cache-v2-df769c6f3678eade4940.json
                cmakeFiles-v1-a649d968e1f834c08070.json
                codemodel-v2-62a975bb3fdb7de17cc8.json
                directory-.-Debug-d0094a50bb2071803777.json
```



Captura que muestra las carpetas `.github/workflows` y `test`

2. Workflow implementado



Captura del archivo `quality-check.yml` completo

3. Ejecución automática

 Resultado en GitHub Actions

Captura de la pestaña Actions mostrando ejecución exitosa

Explicación

1. Configuración del repositorio:

- Creé el repositorio `SM2_ExamenUnidad3`
- Copié mi proyecto Flutter existente

2. Workflow:

- Creé `.github/workflows/quality-check.yml` con:

■ Análisis de código (`flutter analyze`)

```
PS C:\Users\HP\Downloads\examen moviles\SM2_ExamenUnidad3> flutter analyze
Resolving dependencies...
Downloading packages...
  _flutterfire_internals 1.3.54 (1.3.56 available)
  characters 1.4.0 (1.4.1 available)
  cloud_firestore 5.6.7 (5.6.9 available)
  cloud_firestore_platform_interface 6.6.7 (6.6.9 available)
  cloud_firestore_web 4.4.7 (4.4.9 available)
  file_selector_macos 0.9.4+2 (0.9.4+3 available)
  firebase_auth 5.5.3 (5.6.0 available)
  firebase_auth_platform_interface 7.6.2 (7.7.0 available)
  firebase_auth_web 5.14.2 (5.15.0 available)
  firebase_core 3.13.0 (3.14.0 available)
  flutter_lints 5.0.0 (6.0.0 available)
  flutter_local_notifications_platform_interface 9.0.0 (9.1.0 available)
  leak_tracker 10.0.9 (11.0.1 available)
  leak_tracker_flutter_testing 3.0.9 (3.0.10 available)
  leak_tracker_testing 3.0.1 (3.0.2 available)
  lints 5.1.1 (6.0.0 available)
  material_color_utilities 0.11.1 (0.13.0 available)
  meta 1.16.0 (1.17.0 available)
  petitparser 6.1.0 (7.0.0 available)
  test_api 0.7.4 (0.7.6 available)
  vector_math 2.1.4 (2.2.0 available)
  vm_service 15.0.0 (15.0.2 available)
  xml 6.5.0 (6.6.0 available)
Got dependencies!
25 packages have newer versions incompatible with dependency constraints.
Try `flutter pub outdated` for more information.
Building with plugins requires symlink support.

Please enable Developer Mode in your system settings. Run
  start ms-settings:developers
to open settings.
```

■ Pruebas unitarias (`flutter test`)

```
PS C:\Users\HP\Downloads\examen moviles\SM2_ExamenUnidad3> flutter test test/main_test.dart
00:04 +3: All tests passed!
PS C:\Users\HP\Downloads\examen moviles\SM2_ExamenUnidad3> flutter test test/widget_test.dart
```

- Se ejecuta automáticamente en pushes y pull requests

3. Pruebas:

- Implementé 3 pruebas unitarias en `test/main_test.dart`
- Todas pasaron correctamente (100% éxito)

Código relevante

quality-check.yml

```
name: Quality Check

on:
  push:
    branches: [main]
  pull_request:
    branches: [main]

jobs:
  quality-analysis:
    runs-on: ubuntu-latest
    timeout-minutes: 15

    steps:
      - uses: actions/checkout@v4

      - name: Set up Flutter
        uses: subosito/flutter-action@v2
        with:
          flutter-version: '3.32.5'
          channel: 'stable'

      - name: Install dependencies
        run: |
          flutter pub get
          flutter doctor -v

      - name: Run Flutter Analyze
        run: flutter analyze --no-pub --no-fatal-infos

      - name: Run Widget Tests
        run: flutter test test/widget_test.dart

      - name: Run Unit Tests
        run: flutter test test/main_test.dart
```

main_test.dart

```
import 'package:flutter_test/flutter_test.dart';

void main() {
  group('Pruebas Unitarias Básicas', () {
    test('Suma de enteros', () {
      expect(1 + 1, equals(2));
    });
  });
}
```

```
test('Lista contiene elemento', () {  
  final numbers = [1, 2, 3];  
  expect(numbers.contains(2), isTrue);  
});  
  
test('Conversión de string', () {  
  expect('flutter'.toUpperCase(), equals('FLUTTER'));  
});  
}
```