📝 Test Plan – Flipkart Automation Project

# 1. Introduction

This document outlines the test plan for the Flipkart Automation Testing Project using Selenium WebDriver with Python. The objective is to validate core Flipkart features like login, search, cart, filters, and buy now through automated functional testing.

# 2. Scope

The scope includes automating and validating the following functionalities of Flipkart:  
- Login flow with valid, blank, and invalid mobile numbers  
- Product search functionality  
- Product filtering using brand and price filters  
- Add to cart and cart behavior  
- Buy now button flow (without actual purchase)

# 3. Test Approach

Automation testing using:  
- Selenium WebDriver with Python  
- PyTest as the test runner  
- Page Object Model (POM) for maintainable code  
- PyTest-HTML for reporting

# 4. Test Environment

- OS: Windows 10  
- Browser: Google Chrome v117+  
- Python Version: 3.11+  
- Selenium: 4.10+

# 5. Test Data

Sample mobile numbers, search keywords (e.g., 'iPhone', 'Shoes'), and filter criteria (price range, brand).

# 6. Deliverables

- Test scripts for each module (login, search, cart, filter, buy now)  
- PyTest HTML report (`report.html`)  
- Screenshots on test failure  
- Test Summary Report

# 7. Schedule

Total Estimated Duration: 5–7 Days  
- Day 1–2: Login + Search test flows  
- Day 3: Cart + Filter test flows  
- Day 4: Buy Now flow  
- Day 5: Documentation & Reporting

# 8. Risks & Mitigation

- OTP-based login cannot be fully automated → Validate up to OTP sent confirmation only  
- Dynamic UI may cause test flakiness → Static wait used for basic stability

# 9. Approval

Prepared by: Mayank Agrawal  
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