🧪 iJustPaid – Testing Documentation (For Testers)

1. Purpose of This Document

This document defines the **testing strategy, scope, test scenarios, and procedures** for the **iJustPaid** web application.
 It helps testers understand **what to test, how to test, and expected behavior** of the system.

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2. Application Summary (For Testers)

iJustPaid is a web-based automation system that:

- Scrapes deals from multiple platforms

- Processes & filters deal data

- Sends deal notifications to WhatsApp groups automatically

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3. Testing Scope

In-Scope Testing

✔ Frontend UI testing
✔ Backend API testing
✔ Scraping validation
✔ Data processing & deduplication
✔ WhatsApp message delivery
✔ Scheduling & automation
✔ Error handling & logging

Out-of-Scope

✖ Third-party platform internal logic
✖ WhatsApp server-side issues
✖ Affiliate tracking accuracy

4. Testing Types

4.1 Manual Testing

- UI validation

- Message format verification

- Data accuracy checks

4.2 Functional Testing

- Scraper correctness

- API response validation

- WhatsApp sending flow

4.3 Integration Testing

- Scraper → Backend

- Backend → Database

- Backend → WhatsApp API

4.4 Regression Testing

- After new platform addition

- After scraper updates

- After WhatsApp API changes

4.5 Performance Testing (Basic)

- Scraping response time

- Message send delay

- System stability under load

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5. Test Environment

Environment Details

- **Frontend:** React + TypeScript

- **Backend:** Node.js + Express

- **Database:** MongoDB / PostgreSQL

- **Automation:** Cron Jobs

- **Messaging:** WhatsApp API

Test Data

- Dummy product URLs

- Test WhatsApp group

- Mock deals

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6. Test Scenarios & Test Cases

6.1 Frontend Testing

Test Case	Description	Expected Result
UI-01	Page loads correctly	No broken layout
UI-02	API error handling	Error message shown
UI-03	Scraping status visible	Correct status shown

6.2 Scraping Module Testing

Test Case	Description	Expected Result
SCR-01	Scrape valid platform	Deals extracted
SCR-02	Platform down	Graceful failure
SCR-03	DOM structure change	Error logged
SCR-04	No deals available	Empty result handled

6.3 Data Processing Testing

Test Case	Description	Expected Result
DATA-01	Duplicate deals	Only one stored
DATA-02	Invalid price	Deal rejected
DATA-03	Missing fields	Deal skipped
DATA-04	Old deal	Not resent

6.4 Backend API Testing

Test Case	Description	Expected Result
API-01	Fetch deals API	200 OK
API-02	Invalid request	400 error
API-03	Unauthorized access	401 error
API-04	Server error	Logged properly

6.5 WhatsApp Notification Testing

Test Case	Description	Expected Result

WA-01	Send new deal	Message delivered
WA-02	Duplicate deal	Message not sent
WA-03	WhatsApp API down	Retry or log error
WA-04	Invalid group ID	Failure logged

6.6 Scheduling & Automation Testing

Test Case	Description	Expected Result
CRON-01	Cron triggers	Scraping starts
CRON-02	Overlapping jobs	No duplication
CRON-03	Restart server	Jobs resume
CRON-04	High frequency	System stable

7. Negative Testing Scenarios

- Invalid platform URL

- Network timeout

- WhatsApp rate limit exceeded

- Database connection failure

- Scraper crash mid-process

Expected:
System should **not crash** and errors should be **logged properly**.

8. Test Execution Process

1. Setup test environment

2. Configure test WhatsApp group

3. Run scraper manually

4. Validate database entries

5. Verify WhatsApp messages

6. Review logs

7. Report defects

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9. Bug Reporting Guidelines

Each bug should include:

- Bug ID

- Module name

- Steps to reproduce

- Actual result

- Expected result

- Screenshots / logs

- Severity & priority

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10. Severity Levels

Level	Description
Critical	System crash
High	Deal not sent
Medium	Incorrect data
Low	UI / text issue

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11. Test Exit Criteria

Testing is considered complete when:

- All critical & high issues fixed

- No duplicate deal sending

- WhatsApp delivery stable

- Scraping success rate acceptable

- Logs show no unresolved errors

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12. Tester Checklist ✅

✔ Scraper running successfully
✔ No duplicate messages
✔ Correct deal formatting
✔ WhatsApp messages delivered
✔ Errors logged properly
✔ Cron jobs working

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13. Tools Recommended (Optional)

- Postman (API testing)

- MongoDB Compass / DB client

- Browser DevTools

- WhatsApp test group

- Log viewer (PM2 / server logs)

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14. Final Notes for Testers

- Scraping behavior may change due to platform updates

- Always test with **dummy data first**

- Monitor WhatsApp rate limits

- Report flaky behavior immediately