Flipkart Product Scraper - Error Handling & Final Code Notes

✅Final Code Summary

The final code scrapes Flipkart headphone listings and extracts:

- Product Title
- Price
- Rating

It includes error handling, fallback extraction logic, and stores the result in a `JSON` file.

❌Errors Faced & Solutions

1. TimeoutError: Locator.text_content

Issue:

- Occurred when a product listing had no rating.
- Playwright waited for the rating element for 30 seconds and crashed.

Solution:

```
rating_locator = product.locator("span[id^='productRating'] div")
rating = "N/A"
if await rating_locator.count() > 0:
    rating = await rating_locator.first.text_content()
```

This ensures we check if the rating exists **before** trying to extract it.

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2. Autogenerated Class Names (like .Nx9bqj123)

Issue:

- Flipkart uses dynamic CSS classes for price.
- These class names can change anytime.

Fallback Logic Used:

```
price_divs = await product.locator("div").all_text_contents()
for text in price_divs:
    if "₹" in text:
        match = re.match(r"₹\d[\d,]*", text.strip())
        if match:
            price = match.group(0)
            break
```

This uses regex to extract the first price-looking text containing `₹` (Rupee symbol).

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3. Website Load Failures

Handled With:

```
try:
    await page.goto(url)
    print("website loaded successfully")
except Exception as e:
    print(f"Falied to load URL: {url}")
    print(f"Error: {str(e)}")
    await page.screenshot(path="Error_handle_img/debug.png")
    await browser.close()
    return
```

If Flipkart failed to load, it logs the issue, takes a screenshot, and exits the script gracefully.

🔢Output File

```
flipkart_products.json
```

- Stores all extracted products in structured format.
- Each product contains:
- `title`
- `Price`
- `rating`

🔄Improvements You Could Add

- Pagination scraping
- Scrape more fields like number of reviews or delivery time
- Add timestamp to each product
- Send results via email or Telegram

🆘Use Cases

- Price tracking
- Competitor analysis
- Daily reports
- Alerts on price drops

This project gave hands-on experience with error handling, selectors, regex filtering, and data structuring using Playwright.