

01. Web Scraping Tokopedia Automation

Project Description

This project focuses on automation product research with web scraping from the front end of Tokopedia to gather important metrics for specified products. It allows you to input a keyword and the number of products to research, then performs a search on Tokopedia, extracting and summarizing the data. The results are compiled into a single Excel file for easy analysis and review.

Features

- **Scraping Metrics:**
 - Product name
 - Price
 - Star rating
 - Number of items sold
 - Store name
 - Store location
- **Input Parameters:**
 - Keyword for search
 - Number of products to research
- **Data Summary:**
 - List of all gathered products
 - Top product based on specified criteria
 - Top of mind product
 - Summary for every group by rating
- **Output:**
 - All gathered information is compiled into one Excel file.

How It Works

1. **Input Search Criteria:**
 - Provide the keyword you want to search for.
 - Specify the number of products you want to research.
2. **Data Gathering:**
 - The script searches Tokopedia for the given keyword.
 - It gathers important metrics for the specified number of products.
3. **Data Summary:**
 - Lists all gathered products.

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Github : audricsatya/project

- Identifies the top product.
- Provides a summary for every group by rating.

4. Output:

- The results are saved in an Excel file, ready for analysis.

Tutorial

1. Clone the Repository

Bash:

```
git clone https://github.com/audricsatya/project.git
cd project/01_WebScraping_Tokopedia_Automation
```

2. Install Dependencies

```
pip install -r requirements.txt
```

3. Change directory on python file

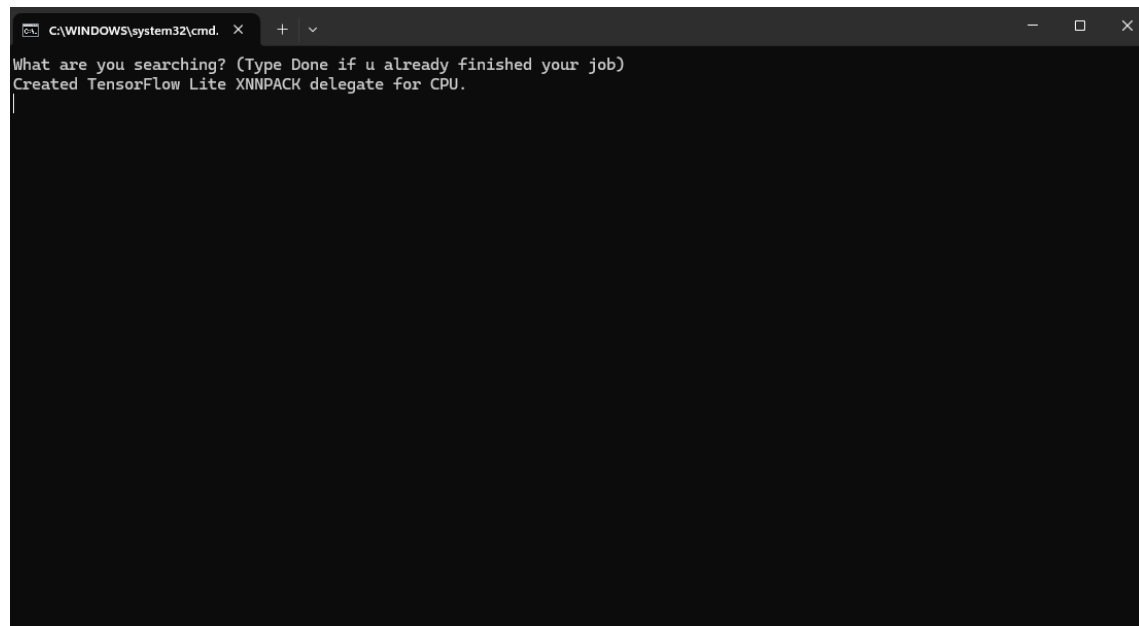
```
# Chrome Profile
chrome_options = webdriver.ChromeOptions()

chrome_options.add_argument('--no-sandbox')
chrome_options.add_argument('--disable-dev-shm-usage')
chrome_options.add_argument(f'user-data-dir=C:\\Users\\{os.getlogin()}\\Downloads\\Scraping\\Chrome_Profile\\') # Directory Chrome Profile
```

4. Change directory on .bat file

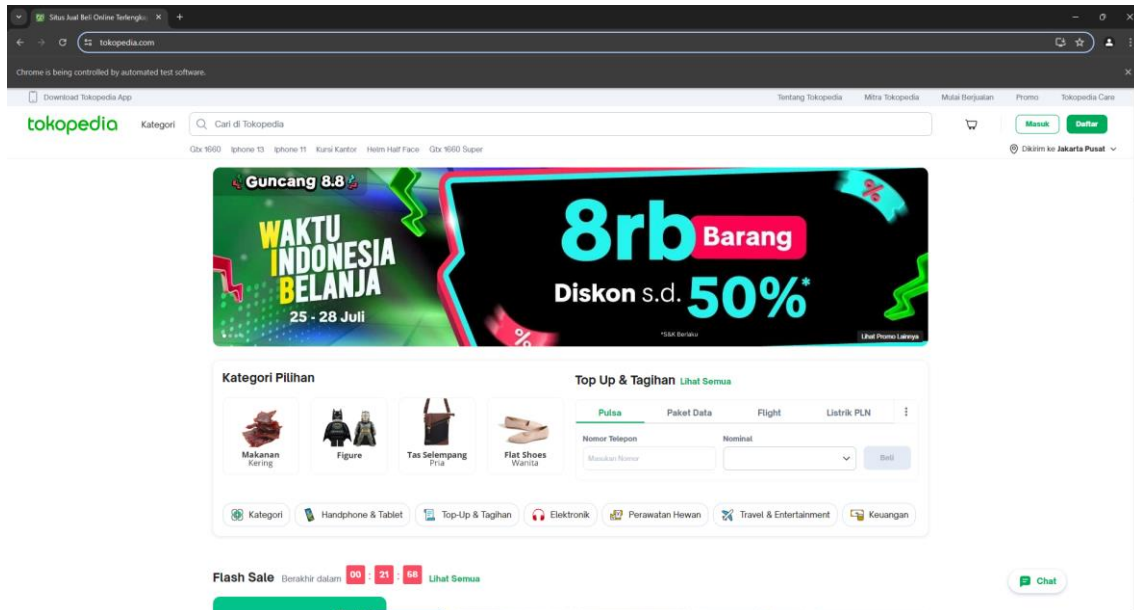
```
@echo off
"Your Python Directory" "your python file directory
/01_webscrape_tokopedia_product_automation.py"
```

5. Run .bat file



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6. Input Parameter

```
What are you searching? (Type Done if u already finished your job)
Created TensorFlow Lite XNNPACK delegate for CPU.
Handphone
How many data do u need? (Number Only (Example:100))
500|
```

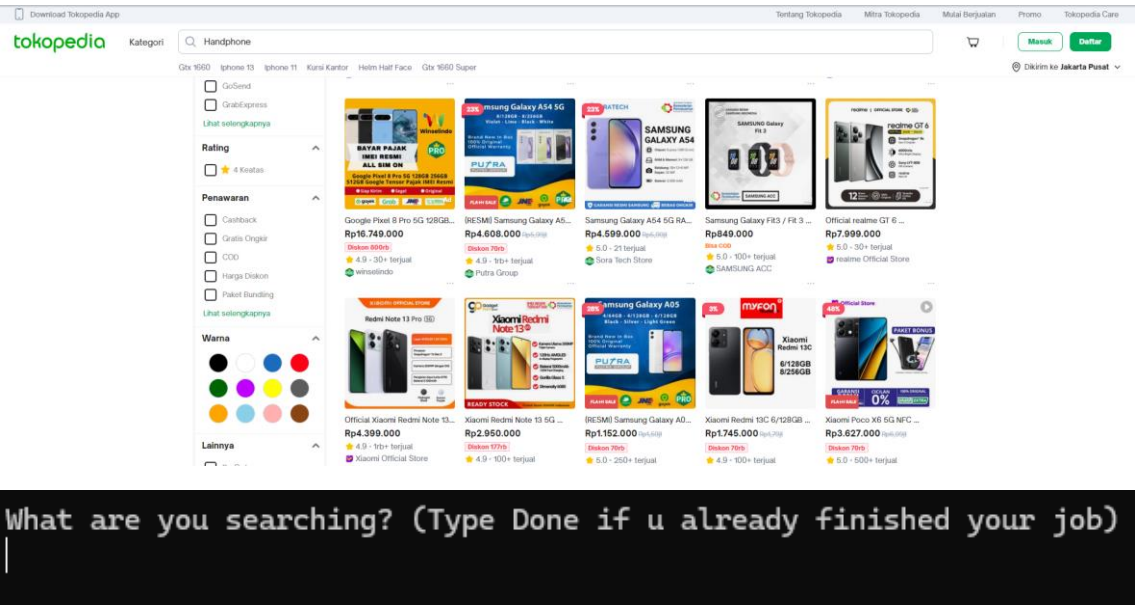
Input product name and how much data you needed

Example:

I want to search about handphone, around 500 data

```
Infinix Hot 40i 8/256 GB Garansi Resmi Hot 40 i Not 30i 30 NFC 30 Play Rp1.541.000 5.0 Distributor Ponsel Distributor Ponsel
Infinix ZERO 30 4G 5G 8/256GB 12/256GB GARANSI RESMI Rp2.630.000 None MEGA store bogor MEGA store bogor
Handphone VIVO Y17 RAM 8/256 GB NEW GARANSI 1 Tahun Rp687.000 4.7 WancellStore WancellStore
[Sinyal Permanen] GOOGLE PIXEL 7/GOOGLE PIXEL 7 PRO 5G 12-128GB SECOND ORIGNAL Rp4.455.000 4.5 oscar68 oscar68
Samsung Galaxy A05s 6/128 GB Garansi Resmi Rp1.843.000 4.9 duniagadgetku duniagadgetku
Samsung Galaxy A05 4/64GB 4/128GB 6/128GB Rp1.330.000 4.9 Myfon Teleshop Official Myfon Teleshop Official
RESMI Poco C65 6/128 8/256 Helio G85 Garansi Resmi Xiaomi 128GB 256GB Rp1.373.000 5.0 Digitech Mall Digitech Mall
Samsung Galaxy A05 6/128 GB 4/128 GB 4/64GB Garansi Resmi Not A04 A05S Rp1.161.000 4.9 Distributor Ponsel Distributor Ponsel
Xiaomi Poco C65 NFC 16GB 256GB (8+8/256) + 12GB 128GB (6+6/128) New Original Garansi Resmi Rp1.354.000 5.0 CA Shop CA Shop
Xiaomi Redmi Note 13 AMOLED 120Hz 108MP Snapdragon 685 Garansi Resmi Rp2.360.000 5.0 Gadget Point Store Gadget Point Store
vivo Y17s (4/64) - 50MP Camera, 15W FlashCharge+5000mAh Rp1.299.000 4.9 vivo Indonesia vivo Indonesia
Samsung Galaxy A05 4/64GB + 4/128GB + 6/128 GB Garansi Resmi Rp1.206.000 5.0 duniagadgetku duniagadgetku
Infinix Note 40 8/256GB Garansi Resmi Rp2.599.000 5.0 CELLULAR-WORLD CELLULAR-WORLD
Redmi Note 13 Rp2.197.500 5.0 jikalaku jikalaku
vivo Y35 (8/128) - RAM 8GB+8GB Extended, 44W FlashCharge+5000mAh - Dawn Gold Rp1.833.000 4.9 vivo Indonesia vivo Indonesia
OPPO A78 4G 8/256 GB Garansi Resmi 8 256 GB Black Green Rp2.579.000 5.0 Digitalisme Digitalisme
Samsung Galaxy S24 Ultra 5G AI Smartphone 12/256 12/512 12/1TB 256 512 Rp16.625.000 4.9 Freydis store Freydis store
Samsung Galaxy A53 5G 256GB Garansi Resmi 8/256 8/128 Rp4.299.000 None Laku8pedia Laku8pedia
OPPO A78 5G 8/128 GB Garansi Resmi 8 128 GB Black Purple Rp2.774.000 None Digitalisme Digitalisme
Handphone VIVO Y17 RAM 8/256 GB NEW GARANSI 1 Tahun Rp687.000 4.7 WancellStore WancellStore
Samsung S23 Ultra 5G 12/512 Second Garansi Resmi Sein Indo Mulus Rp13.850.000 5.0 TOPSELL ONLINE TOPSELL ONLINE
Xiaomi Mi Pad 6 8GB 256GB Gray Blue Garansi Resmi Smart Tablet Tab Rp4.540.000 5.0 iStuffOriginal iStuffOriginal
```

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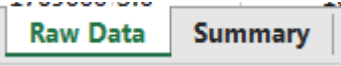
Type Done when you're finished.

You can create as many files as you want.

7. Output

There will be an excel file with 2 sheets and will be named by your searched product.

1. Raw Data



Name	Price	Rating	Product Sold	Location	Store
Samsung Galaxy A55 5G 8/256GB	5999000	5.0	100	MHI - Samsung Authorized	MHI - Samsung Authorized
iPhone 15 Promax Garansi Resmi Promo	21304000		750	igoods gadget	igoods gadget
Infinix Note 40 8/256GB - Garansi Resmi 1 Tahun	2275000	5.0	90	SONIC Gadgets	SONIC Gadgets
Samsung Galaxy Z Fold 6 5G 256GB 512GB 1TB RAM 12GB Garansi Resmi SEIN - Navy, 12/256GB	24899000		0	Digital Authorized	Digital Authorized
Xiaomi Redmi A3 4/128GB Garansi Resmi - not Redmi A2 A1	1103000	5.0	750	Indotechstore	Indotechstore
Samsung Galaxy A05s 6/128 GB Garansi Resmi	1843000	4.9	3000	duniagadgetku	duniagadgetku
Samsung Galaxy A05 4/64GB 4/128GB 6/128GB	1100000	4.9	2000	Myfon Teleshop Official	Myfon Teleshop Official
RESMI Poco C65 6/128 8/256 Helio G85 Garansi Resmi Xiaomi 128GB 256GB	1373000	5.0	1000	Digitech Mall	Digitech Mall
Samsung A05 4/64 Garansi Resmi	1215000	5.0	750	ACS	ACS
Xiaomi Poco C65 NFC 16GB 256GB (8+8/256) + 12GB 128GB (6+6/128) New Original Garansi Resmi	1354000	5.0	70	CA Shop	CA Shop
vivo Y17s (4/64) - 50MP Camera, 15W FlashCharge+5000mAh	1299000	4.9	2000	vivo Indonesia	vivo Indonesia
Samsung Galaxy A05 4/64GB + 4/128GB + 6/128 GB Garansi Resmi	1206000	5.0	1000	duniagadgetku	duniagadgetku
Infinix Note 40 8/256GB Garansi Resmi	2599000	5.0	50	CELLULAR-WORLD	CELLULAR-WORLD
Redmi Note 13	2197500	5.0	500	jikalaku	jikalaku
Xiaomi Redmi Note 13 5G / LTE 8/256 GB Garansi Resmi 8 256 GB Not 12	2193000	4.9	1000	Distributor Ponsel	Distributor Ponsel
vivo IQOO Z7 (12/256) - SDM 782G, 120W FlashCharge + 5000mAh, 64MP OIS - Matrix Blue	3610000	4.9	5000	vivo Indonesia	vivo Indonesia
samsung s21 ultra 12/256gb sein resmi original	6645000	4.8	18	RKHA STORE	RKHA STORE
Samsung Galaxy A35 5G 8/128GB (Free Upgrade Memory to 256GB)	4999000	5.0	30	MHI - Samsung Authorized	MHI - Samsung Authorized
samsung z fold 3 5g12/256gb garansi resmi sein fullset minus no minus.	8345000	4.0	9	RKHA STORE	RKHA STORE
OPPO Reno11 F 5G 8GB/256GB (Garansi Resmi)	4399000	4.9	500	OPPO OFFICIAL STORE	OPPO OFFICIAL STORE
Vivo Y03 4/64GB 4/128GB Garansi Resmi	1235000		0	OKESHOP	OKESHOP
Xiaomi Poco M6 Pro 8/256 (8GB 256GB) Garansi Resmi Not M5 X5 M4	2682000	5.0	250	Digitech Mall	Digitech Mall
Samsung Galaxsi M14 6/128 5g New-Segel-Resmi	2650000	5.0	25	Bintang_cell222	Bintang_cell222
Realme Note 50 3/64GB 4/64GB 4/128GB Vivid Display Resmi - PROMO Black, 4/64GB	1164000	5.0	100	iStuffOriginal	iStuffOriginal
Samsung Galaxy Fold6 Fold 6 12/256 12/512 12/1TB Garansi Resmi Navy Pink Silver	26500000	5.0	9	Digitalisme	Digitalisme
Redmi Note 13 Pro 5G 8/256 4G 8/256 GB Garansi Resmi Xiaomi Not 12	3457000	4.9	750	Digitech Mall	Digitech Mall
Xiaomi Redmi Note 13 Pro 4G Redmi Note 13 Pro 5G 8/256 GB Resmi	3482000	5.0	750	duniagadgetku	duniagadgetku
Xiaomi Redmi 13C 6/128 GB Garansi Resmi	1513000	5.0	250	Gudang-HP	Gudang-HP
Vivo V30 Pro 12/512 GB - Vivo V30 8/256 GB Garansi Resmi Not V29 V29e	4800000	4.9	750	Distributor Ponsel	Distributor Ponsel
Vivo Y03 4/64GB 4/128GB Garansi Resmi Indonesia 1 Tahun	1185000	4.9	250		
SAMSUNG GALAXI M 31 NEW GARANSI RESMI SEIN 1 TAHUN	2900000		30	Bintang_cell222	Bintang_cell222
Xiaomi Redmi Note 13 5G 8/256 GB 4G 8/256 GB - Promo, 4G 8/128	2265000	5.0	100	OKESHOP	OKESHOP
Official HP realme 12 5G 8GB+8GB* 256GB 108MP Camera 6.72 FHD+ LCD	3135000	5.0	100	realme Official Store	realme Official Store
ADVAN smartphone NASA PRO 2GB/32GB Android 11	699000	4.9	1000	Advan Official Store	Advan Official Store
SAMSUNG 116L Original	705000		0	zonaprint.	zonaprint.
Xiaomi Redmi A3 4/128 GB [4GB+128GB] Garansi Resmi Xiaomi Indonesia	1119000	5.0	1000	duniagadgetku	duniagadgetku
Xiaomi Redmi 13C 6/128GB 8/256GB 50MP AI Triple Camera Garansi Xiaomi	1769000	5.0	100	Gadget Print Store	Gadget Print Store

2. Summary

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Github : audricsatya/project

10 Product Top of Mind					
Name	Price	Rating	Product Sold	Location	Store
Samsung Galaxy A55 5G 8/256GB	Rp5.999.000	5.0	100	MHI - Samsung Authorized	MHI - Samsung Authorized
iPhone 15 Promax Garansi Resmi Promo	Rp21.304.000		750	igoods gadget	igoods gadget
Infinix Note 40 8/256GB - Garansi Resmi 1 Tahun	Rp2.275.000	5.0	90	SONIC Gadgets	SONIC Gadgets
Samsung Galaxy Z Fold 6 5G 256GB 512GB 1TB RAM 12GB Garansi Resmi SEIN - Navy, 12/256GB	Rp24.899.000		0	Digital Authorized	Digital Authorized
Xiaomi Redmi A3 4/128GB Garansi Resmi - not Redmi A2 A1	Rp1.103.000	5.0	750	Indotechstore	Indotechstore
Samsung Galaxy A05s 4/128 GB Garansi Resmi	Rp1.843.000	4.9	3000	duniagadgetku	duniagadgetku
Samsung Galaxy A05 4/64GB 4/128GB 6/128GB	Rp1.100.000	4.9	2000	Myfon Teleshop Official	Myfon Teleshop Official
RESMI Poco C65 6/128 8/256 Helio G85 Garansi Resmi Xiaomi 128GB 256GB	Rp1.373.000	5.0	1000	Digittech Mall	Digittech Mall
Samsung A05 4/64 Garansi Resmi	Rp1.215.000	5.0	750	ACS	ACS
Xiaomi Poco C65 NFC 16GB 256GB (8+8/256) + 12GB 128GB (6+6/128) New Original Garansi Resmi	Rp1.354.000	5.0	70	CA Shop	CA Shop

Top Selling Product					
Name	Price	Rating	Product Sold	Location	Store
Anker 312 Charger 25W PPS PD SFC Fast Charging USB Type C - A2642 - Black	Rp114.000	5.0	4000	ZTH Official	ZTH Official
Samsung Galaxy A54 5G	Rp4.183.000	5.0	4000	jikalaku	jikalaku
vivo IQOO Z7 (12/256) - SDM 782G, 120W FlashCharge + 5000mAh, 64MP OIS - Matrix Blue	Rp3.610.000	4.9	5000	vivo Indonesia	vivo Indonesia
Official POCO M6 Pro 120Hz Flow AMOLED 64MP triple camera OIS 67W - Black, 8+256GB	Rp2.779.000	4.9	5000	Xiaomi Official Store	Xiaomi Official Store
vivo IQOO Z7 (12/256) - SDM 782G, 120W FlashCharge + 5000mAh, 64MP OIS	Rp3.610.000	4.9	5000	vivo Indonesia	vivo Indonesia
Handphone HP Samsung Flip Lipat Caramel GT-E1272 DUAL SIM Hitam Putih	Rp155.000		7000	Luckyaccgrosiran	Luckyaccgrosiran
Official Xiaomi Redmi 13C Tiga kamera AI 50 MP 16 GB RAM* Layar Dot	Rp1.499.000	4.9	8000	Xiaomi Official Store	Xiaomi Official Store
Official POCO X6 Powerful Snapdragon® 7s Gen 2 Flow AMOLED 120 Hz 64 - White, 12+256	Rp3.649.000	4.9	8000	Xiaomi Official Store	Xiaomi Official Store
Official POCO C65 RAM hingga 16 GB* Prosesor kencang Helio G85 90Hz - Purple, 8+256G	Rp1.699.000	4.9	10000	Xiaomi Official Store	Xiaomi Official Store
Official POCO X6 Pro 5G Dimensity 8300-Ultra 120Hz Flow AMOLED 67W T	Rp4.899.000	4.8	10000	Xiaomi Official Store	Xiaomi Official Store

Summary Data		
Name	Value	Product Name
Minimum Price Purchased	25000	RELAX Essential Infinity Artisan Refill Aneka Rasa
Maximum Price Purchased	26500000	Samsung Galaxy Fold6 Fold 6 12/256 12/512 12/1TB Garansi Resmi Navy Pink Silver
Average Price Purchased	3725878	
Total Purchased Product	449	
Minimum Price Listed	25000	RELAX Essential Infinity Artisan Refill Aneka Rasa
Maximum Price Listed	31999000	Samsung Galaxy Z Fold6 1TB/12GB Online Exclusive, Smartphone AI, Smartphone Lipat, Android 14, One UI 6.1, Kamera 50MP
Average Price Listed	3889855	
Total Listed Product	478	

Summary Group		
Name	Value	Product Name
Less Than 4 Star	1	
Maximum Price (<= 4 Star)	8345000	samsung z fold 3 5g12/256gb garansi resmi sein fullset mulus no minus.
Minimum Price (<= 4 Star)	8345000	samsung z fold 3 5g12/256gb garansi resmi sein fullset mulus no minus.
Average Price (<= 4 Star)	8345000	
Most Sold Product (<= 4 Star)	9	samsung z fold 3 5g12/256gb garansi resmi sein fullset mulus no minus.
4 - 4.5 Star	2	
Maximum Price (4 - 4.5 Star)	848000	VIVO Y20S RAM 8/256GB GARANSI 1 TAHUN
Minimum Price (4 - 4.5 Star)	189000	ADVAN Hammer R6 Handphone Poliponik Feature Phone Garansi Resmi
Average Price (4 - 4.5 Star)	518500	
Most Sold Product (4 - 4.5 Star)	50	VIVO Y20S RAM 8/256GB GARANSI 1 TAHUN
More Than 4.5 Star	446	
Maximum Price (> 4.5 Star)	26500000	Samsung Galaxy Fold6 Fold 6 12/256 12/512 12/1TB Garansi Resmi Navy Pink Silver
Minimum Price (> 4.5 Star)	25000	RELAX Essential Infinity Artisan Refill Aneka Rasa
Average Price (> 4.5 Star)	3729904.978	
Most Sold Product (> 4.5 Star)	10000	Official POCO C65 RAM hingga 16 GB* Prosesor kencang Helio G85 90Hz - Purple, 8+256G