

This python script scrapes the Facebook marketplace for entries within a given set of rules. Price range, location and how long ago they were posted are the key factors.

The script is run as follows:

```
Command Prompt - py main.py

D:\Programming\GitHub\Upwork-Projects\FBMP>py main.py
please enter a category from the list:
Vehicles, Property Rentals, Apparel, Classifieds, Electronics, Entertainment, Family, Free Stuff , Garden & Outdoor, Hobbies, Home Goods, Musical Instruments, Office Supplies, Pet Supplies, Sporting Goods, Toys & Games:
vehicles
please enter a search location:
ontario
please enter a search radius:
50
please enter a minimum price for search:
0
please enter a maximum price for search:
15000
please enter a keyword for search:

please enter a refresh rate (possible format examples: 5 minutes, 2 days... or amount of seconds in number: 300, 500, 600...):
30 minutes
please enter your email address:
itamar1902@gmail.com
Initializing search...
Starting scan.
----debug: login (1/3) complete. proceeding...
----debug: login (2/3) complete. proceeding...
----debug: successful login.
saving 2002 Honda civic to dict...
saving 2005 Bombardier 600 to dict...
saving 2002 Honda cr to dict...
saving 2021 Coleman bx200 to dict...
saving 2005 Skidoo machz 1000 to dict...
saving 2002 Skidoo grand touring 800 to dict...
saving 2008 Kia amanti to dict...
saving Deux Skidoo Fonctionne Bien 3000$ Non Nego to dict...
Data Sent.
```

Once the scan for recent listings is complete, the script sends an email to the subject with the new data entries. The mail looks like this:

ibar.data

You have new data! 8 new listings found. - listingtitle listingid listingprice posttime postlocation link scrapetime

7:56 PM

	listingtitle	listingid	listingprice	posttime	postlocation	link	scrapetime
0	2002 Honda civic	702140201408545	\$1,700	5 minutes	Messines, QC	<a href="https://www.facebook.com/marketplace/item/702140201408545?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%22571270832634981%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%2241720832634981%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A44604147872509e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%225741270832634981%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD">https://www.facebook.com/marketplace/item/702140201408545?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%22571270832634981%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%2241720832634981%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A44604147872509e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%225741270832634981%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD</a>	15-01-2023. 19H:54M
1	2002 Honda cr	883639466419025	\$4,000	10 minutes	Gatineau, QC	<a href="https://www.facebook.com/marketplace/item/883639466419025?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%22571532529614960%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%2241720832634981%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A4460645023686e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%225741270832634981%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD">https://www.facebook.com/marketplace/item/883639466419025?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%22571532529614960%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%2241720832634981%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A4460645023686e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%225741270832634981%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD</a>	15-01-2023. 19H:54M
2	2002 Skidoo grand touring 800	770867197797832	\$3,500	21 minutes	Ottawa, ON	<a href="https://www.facebook.com/marketplace/item/770867197797832?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%228472714846137064%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%2241720832634981%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A441952920410486e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%228472714846137064%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD">https://www.facebook.com/marketplace/item/770867197797832?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%228472714846137064%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%2241720832634981%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A441952920410486e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%228472714846137064%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD</a>	15-01-2023. 19H:55M
3	2005 Bombardier 600	527336129375677	\$3,500	10 minutes	East Hawkesbury, ON	<a href="https://www.facebook.com/marketplace/item/527336129375677?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%225712902128746653%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%2212902128746653%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A38008420704809e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%225712902128746653%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD">https://www.facebook.com/marketplace/item/527336129375677?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%225712902128746653%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%2212902128746653%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A38008420704809e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%225712902128746653%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD</a>	15-01-2023. 19H:54M
4	2005 Skidoo machz 1000	116885097066665	\$2,300	14 minutes	Gatineau, QC	<a href="https://www.facebook.com/marketplace/item/116885097066665?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%228803430676364045%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%228803430676364045%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A3865972109485e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%228803430676364045%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD">https://www.facebook.com/marketplace/item/116885097066665?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%228803430676364045%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%228803430676364045%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A3865972109485e-6%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%228803430676364045%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD</a>	15-01-2023. 19H:55M
5	2008 Kia amanti	890060138693385	\$1,150	26 minutes	Gatineau, QC	<a href="https://www.facebook.com/marketplace/item/890060138693385?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%226259090137469269%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%226259090137469269%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A446367455741e-8%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%226259090137469269%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD">https://www.facebook.com/marketplace/item/890060138693385?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%226259090137469269%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%226259090137469269%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A446367455741e-8%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%226259090137469269%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD</a>	15-01-2023. 19H:55M
						<a href="https://www.facebook.com/marketplace/item/613972707399815?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%226259090137469269%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%226259090137469269%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A446367455741e-8%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%226259090137469269%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD">https://www.facebook.com/marketplace/item/613972707399815?hoisted=false&amp;ref=category_feed&amp;referral_code=undefined&amp;referral_story_type=listing&amp;tracking=%7B%22aid%22%3A%224880817257087876228%22%2C%22mf_story_key%22%3A%226259090137469269%22%2C%22commerce_rank_obj%22%3A%22%7B%5C%22target_url%5C%22%3A%226259090137469269%2C%5C%22target_type%5C%22%3A0%2C%5C%22primary_position%5C%22%3A0%2C%5C%22rankin_signature%5C%22%3A2240966793768206336%2C%5C%22commerce_channel%5C%22%3A504%2C%5C%22value%5C%22%3A446367455741e-8%2C%5C%22candidate_retrieval_source_map%5C%22%3A%7B%5C%226259090137469269%5C%22%3A111%7D%7D%22%2C%22hmd_400706%22%3A%22111120%22%7D&amp;_in_=%3AD</a>	

For this project I used Selenium, BeautifulSoup4, requests and pandas. I also used undetected-chrome which helps the scraper not get detected, and smtplib which is used to send and receive emails.