

Task 1:

Open source programming languages : python, kotlin, Go, ruby, scala, R, PHP, swift, shell, perl.

Task 2:

Compiled programming languages : kotlin, swift, Go, scala, C, C++, C#, objective C.

Interpreted programming languages : PHP, ruby, python, perl.

Task 3:

AI companies in Egypt:

1. ABM Egypt:

- **Website:** [E-Marketing Services](#) - promote your business online
- [ABMEGYPT](#)
- **Interested in:** NLP, Social Media analytics, Search Engine optimization.
- **Location:** 21 Ahmed El Zomor, no. 301, naser city, cairo, Egypt.

2. Advansy ESC:

- **Website:** [Advansys ESC](#)
- **Interested in:** Embedded Software, Big data, IoT.
- **Location:** Free Zone, Area 1, Block K, Al Wafaa W Al Amal, Nasr City.

3. Affectiva:

- **Website:** [Home](#)
- **Interested in:** Machine learning, Deep learning, Computer vision, Speech(new project(s)).
- **Location:** Cairo, Egypt.

4. **Agolo:**
 - **Website:** [Summarization Platform | Agolo](#)
 - **Interested in:** NLP, ML, DL.
5. **Arqamfc:**
 - **Website:** [ArqamFC / Making Sports Smarter](#)
 - **Interested in:** Analytics
 - **Location:** Cairo, Egypt.
6. **Ave labs:**
 - **Website:** [Avelabs](#)
 - **Interested in:** Deep learning, Machine learning techniques, Computer vision, Image Processing and Signal Processing, Control theory & Artificial Intelligence.
 - **Location:** maadi technology park, 11435 cairo.
7. **Avid beam:**
 - **Website:** [AvidBeam](#)
 - **Interested in:** Machine learning, OCR, Computer vision, DL.
 - **Location:** 5 wadi el Nile street, Maadi, Cairo, Egypt.
8. **BADR:**
 - **Website:** <http://badrit.com/>
 - **Interested in:** H Amir Al Behar Mahmoud Hamza, Roushdy, Alexandria, Alex 21531, EG, Alexandria, Alexandria Governorate 21531 Egypt
 - **Location:** Data Visualization, Machine Learning-data analytics
9. **Bee Smart Payment Solutions:**
 - **Website:** [Bee:Smart Payment Solutions](#)
 - **Interested in:** ML, Big Data.
 - **Location:** المعادي، وادي النيل، معادي الخيري الشرقية، حي ٥
10. **Botler:**
 - **Website:** [BOTLER](#)
 - **Interested in:** Chatbots, ML, NLP, Information retrieval.
 - **Location:**
11. **Cequens:**
 - **Website:** [Cequens: Messaging | Video | Voice](#)
 - **Interested in:** Predictive models, Machine Learning, Chatbots.
 - **Location:** 21 Mohamed Tawfiq Diab, Naser City, Cairo, Egypt.

12.Cognitev(Mena commerce):

- **Website:** [Cognitev](#)
- **Interested in:** ML,DL, Recommendation systems, IR (Information Retrieval), NLP (Natural - Language Processing).
- Location:** platform.

13.Comiot:

- **Website:** [Innovation for a connected world](#)
- **Interested in:** Iot, Computer vision, machine learning.
- Location:** platform.

14.Crowd analyzer:

- **Website:** [The 1st Arabic Focused Internationally Recognized Social Media Monitoring Platform](#)
- **Interested in:** Big data, Machine learning, Social Media Analysis, Arabic in Social Media Analytics.
- Location:** platform.

15.Data Gear BI:

- **Website:** [Home - datagearbi.com](#)
- **Interested in:** Data Mining, Business Intelligent(BI),
- Location:** 22 Soliman Azmy St., Off Abd AlHameed Badawy St. Opposite Sqwash Stadiums Behind The Military School (Al-Koleya AlHarbeya) , Nozha | Cairo | Egypt

16.DLC:

- **Website:** [Home - dlc.](#)
- **Interested in:** Recommendation systems, NLP, Chatbots.
- Location:** 55 Nile Corniche, Maadi, Cairo, Egypt

17.El menus:

- **Website:** <https://www.elmenus.com/>
- **Interested in:** recommendation systems, NLP.
- Location:** platform.

18.Elves:

- **Website:** [elves - Your Personal Little Helper](#)
- **Interested in:** ML, Information retrieval, chatbots, NLP.
- Location:** platform.

19.Heuro Labs:

- **Website:** [Enterprise Cognitive Intelligence for smart and connected world!"](#)
- **Interested in:** Artificial Intelligence, Cognitive Computing, Machine Learning, Big Data, Data Fusion and Data Mining.
- Location:** platform.

20.HUB 43:

- **Website:** [Browser based game development](#)
- **Interested in:** AI for game development.
- Location:** platform.

21.IBM Egypt:

- **Website:** [IBM - Employment - Egypt](#)
- **Interested in:** NLP(Watson practice team), ML, DL.
- Location:** platform.

22.Incorta:

- **Website:** [The Fastest Way to Analyze Complex Business Data | Incorta](#)
- **Interested in:** BI, data visualization.
- Location:** platform.

23.InnoVision Systems

- **Website:** [InnoVision Systems](#)
- **Interested in:** Robotics, computer vision.
- Location:** Apartment no. 2, , 61 El-Tahrir St., Sheraton , Heliopolis, El Nozha, Cairo Governorate 11799

24.Itworx:

- **Website:** [Home - ITWORX](#)
- **Interested in:** Big Data.
- Location:** platform.

25.Knowledge officer

- **Website:** [Knowledge Officer - Cutting through the Noise!](#)
- **Interested in:** information retrieval and text summarization for articles on the web. Based mainly for many NLP and recommendation systems.
- Location:** platform.

26. Media Gate:

- **Website:** [Media Gate](#)
- **Interested in:** AI for game development.
- **Location:** platform.

27. Mendel:

- **Website:** [Mendel.ai](#)
- **Interested in:** Artificial Intelligence in Medicine, Machine learning, OCR, NLP.
- **Location:** platform.

28. Microsoft ATLc:

- **Website:** [The Advanced Technology Lab Cairo](#)
- **Interested in:** ML, DL, NLP, OCR, Speech, Search engines(Bing team).
- **Location:** cairo, Egypt.

29. OMS:

- **Website:** [OMS Egypt](#)
- **Interested in:** Big Data.
- **Location:** platform.

30. Optomatica:

- **Website:** [The Power to Perfect](#)
- **Interested in:** Machine Learning, AI and Optimization solutions, Analytics .
- **Location:** 1st Floor Building 11 The 6th Touristic Area, 6th of October Cairo, Egypt

31. Oracle:

- **Website:** [Integrated Cloud Applications and Platform Services](#)
- **Interested in:** Machine learning, Big data.
- **Location:** platform.

32. Orange:

- **Website:** [Orange Egypt- Shop for Mobile Phones, Lines, Internet Plans, Apps, Music](#)
- **Interested in:** ML, Big Data, Data Analytic.
- **Location:** platform.

33. Pixellion

- **Website:** [Home](#)
- **Interested in:** Image processing, Machine learning, Deep

learning, Computer vision, image recognition in the retail industry

-Location: platform.

34.Raisa Energy:

- Website: [Raisa Energy LLC](#)

- Interested in: ML, predictive modeling.

-Location: Villa 2, Street 212, Maadi Cairo, Egypt, 11728

35.RDI:

- Website: [RDI](#)

- Interested in: Machine learning, Deep learning, Arabic/English OCR, Search engines, Information retrieval, Arabic/English NLP and Arabic/English speech recognition/identification.

-Location: 12A haroun, doqi, giza, Egypt.

36.Rology:

- Website: [Rology](#)

- Interested in: *Computer Vision, Medical Image Processing, Machine Learning.*

-Location: platform.

37.Sadeem:

- Website: [Sadeem®](#)

- Interested in: IoT & Business Analytics

-Location: 6 el gehad st,lebanon square,mohandessin,giza Egypt

38.Seeloz:

- Website: [Seeloz - Data-Driven Decision-Making](#)

- Interested in: Data analytics, ML.

-Location: platform.

39.Soho Square Solutions:

- Website: [Home - Sohospace](#)

- Interested in: IR (Information Retrieval), ML, NLP (Natural - Language Processing).

-Location: platform.

40.Speakol:

- Website: [speakol ads](#)

- Interested in: ML, DL, Big Data.

-Location: platform.

41.Sypron:

- **Website:** [Dream . Think . Invent](#)
- **Interested in:** Big Data, ML, DL, Computer vision, NLP, General AI apps.
- Location:** platform.

42.Stratochem:

- **Website:** [StratoChem Services](#)
- **Interested in:** Data analysis, Image processing, data mining.
- Location:** platform.

43.Tactful:

- **Website:** [Home - Tactful.ai](#)
- **Interested in:** Conversational Agents, NLU, DL, Information Retrieval.
- Location:** platform.

44.Tahrir news:

- **Website:** [التحرير الإخباري](#)
- **Interested in:** Machine learning, Deep learning, NLP(Arabic & English).
- Location:** platform.

45.TA Telecom:

- **Website:** [TA telecom - Big Data, Analytic Tools and Mobile Technologies](#)
- **Interested in:** Big data analytics.
- Location:** platform.

46.TayRec :

- **Website:** [Tanques y recubrimientos.](#)
- **Interested in:** Quantitative data analysis, Big Data, ML.
- Location:** platform.

47.Teradata:

- **Website:** [Business Analytics, Hybrid Cloud & Consulting | Teradata](#)
- **Interested in:** Big Data Analytics, machine learning and data mining.
- Location:** platform.

48.The D. GmbH:

- **Website:** [The D. GmbH](#)

- **Interested in:** NLP, Chatbots, Computer Vision, Video Analysis.
- **Location:** platform.

49. **Tpay:**

- **Website:** [TPAY](#)
- **Interested in:** Machine learning.
- **Location:** platform.

50. **Trendak:**

- **Website:** [trendak](#)
- **Interested in:** Machine learning, Social Media analytics, NLP and Big data.
- **Location:** platform.

51. **Trustious:** (The product is no longer under development I think)

- **Website:** [Trustious](#)
- **Interested in:** recommendation systems, NLP.
- **Location:** platform.

52. **Usy tech:**

- **Website:** [USYTech](#)
- **Interested in:** NLP.
- **Location:** 15 Abd El Hamid Badawy - Heliopolis - 6th floor - Apartment 14

53. **Valeo:**

- **Website:** [Valeo Egypt](#)
- **Interested in:** ML, DL, reinforcement learning, Computer vision, Autonomous driving.
- **Location:** F22 Building, Smart Village طريق القاهرة - الإسكندرية الصحراوي، الجيزة

54. **Vditory:**

- **Website:** [VDITORY](#)
- **Interested in:** ML, Image processing, Computer vision.
- **Location:** حي العاشر، مدينة نصر، محافظة القاهرة

55. **Wego:**

- **Website:** <https://eg.wego.com/en>
- **Interested in:** Data analysis, machine learning, recommendation systems.
- **Location:** platform.

56. WideBot:

- **Website:** [Home - WideBot](#)
- **Interested in:** Chatbots, NLP
- **Location:** platform.

57. Wuzzuf:

- **Website:** [Sign In | WUZZUF](#)
- **Interested in:** Machine learning, NLP(new project(s)), Search engines, Recommendation/Ranking systems and information retrieval.
- **Location:** platform.

58. Xtrava:

- **Website:** [Xtrava](#)
- **Interested in:** Machine learning, Deep learning, Signal processing.
- **Location:** platform.

59. Yaoota!:

- **Website:** [Yaoota!](#)
- **Interested in:** Search engine, Big data, ML, NLP.
- **Location:** platform.

60. MobiDev:

- **Interested in:** Computer vision-data analysis
- **Location:** 24 B Dr. Anwar El Mofti St. Nasr City, Cairo, Egypt

61. Light IT:

- **Interested in:** product viability analysis
- **Location:** Peremohy St, 70Б, Zaporizhzhia, Zaporizhia Oblast, أوكرانيا،

62. Selleo:

- **Interested in:** data analytics
- **Location:** Abnub, Egypt

63. ISG -Intelligent systems group:

- **Interested in:** Medical

-Location: 3(A) Said Sabry Front of Sali Mall behind Serag Mall, Nasr City, Cairo, Cairo 11371 Egypt

64.eBSEG OmniChannel Digital Transformation Solutions:

- Interested in: Medical

-Location: Building 11/H, Taqseem Laselky, New Maadi., Cairo, Cairo 11742

65.BitBang:

- Interested in: Medical

-Location: Al Gazira St- 4th District - Alsheikh Zayed - 6 of October - Egypt, Giza, al-Jizah 12588

66.Super Call Call center&CRM Solutions:

- Interested in: Medical-Automation

-Location: Villa 573 El Banafseg st, Rehab main Road,1th District,Cairo,Egypt, Cairo, Cairo 1 1241 Egypt

67.Hyper Media Labs A full-service software development agency:

- Interested in: Medical-Automation

-Location: Asmaa Fahmy, Cairo, Cairo 11765 Egypt

68.S B Technology Make the Smart choice:

- Interested in: Medical- Automation

-Location: 22 El Andalous St., Heliopolis, Cairo, Egypt., Cairo, Cairo 11341 Egypt

69.Winch Your logistics partner:

- Interested in: Automation

-Location: B3-8 Rayhana Residence, Zahraa El Maadi, Cairo, Egypt, Cairo, Cairo 11742 Egypt

70.Faceela Software House Software house with solid digital products:

- Interested in: Medical

-Location: 228 Falaki St. Down town., Cairo, Cairo 11762 Egypt

71. BrancoSoft Private Limited Mobile App development Agency:

- ***Interested in:*** Medical-Automation

- ***Location:*** Platform

72. Octal IT Solution Technology. Outsourcing. Simplified:

- ***Interested in:*** Medical

- ***Location:*** Aswan, Egypt

73. RipenApps Developing Above Excellence:

- ***Interested in:*** Medical

- ***Location:*** Heliopolis, Egypt

74. Quytech:

- ***Interested in:*** Medical-Automation

- ***Location:*** Abnub, Egypt

75. Seven Dynamic Crafting Digital Experiences:

- ***Interested in:*** Medical-Automation

- ***Location:*** 275 South of Academy A, Cairo, Cairo 11511 Egypt

76. Nile Bits, LLC. Digital Solutions:

- ***Interested in:*** Medical

- ***Location:*** Madinat Sittah Uktubar, Egypt

77. Anadea Inc. Smart Software Solutions for Business and Life.:

- ***Interested in:*** Medical

- ***Location:*** Abnub, Egypt

78. Ovators Connecting Dots:

- ***Interested in:*** Medical- Automation

- ***Location:*** 2 st Farag el Sanhoury, Cairo, Cairo 11843 Egypt

79. TechZone Labs Empowering Start-Ups and Businesses:

- ***Interested in:*** Medical

- ***Location:*** Abou Queir Street, Alexandria, Alexandria Governorate 16411 Egypt

80.webbingstone:

- ***Interested in:*** Medical

- ***Location:*** 500 Abd-Elmoniem Riad St, Motamayez District, 6th Of October, Mohandessin, Giza Governorate 11211

81.Promatics Technologies:

- ***Interested in:*** Medical

- ***Location:*** Bani Muhammadiyat, Egypt

82.Robusta Where art and technology meet.:

- ***Interested in:*** Medical

- ***Location:*** 34/35 CONCORD PLAZA, ST. 90 CAIRO - EGYPT, Cairo, Cairo 11311

83.VRapeutic | Provider of virtual reality based therapeutic solution:

- ***Interested in:*** Medical

- ***Location:*** Alexandria (Egypt)

Task 4:

3 examples of clean code :

1:

```
❑
const a = document.getElementById('a'),
b = document.getElementById('b'),
c = document.getElementById('c');
d = document.getElementById('d');

✔❑
const elements = { };
['a', 'b', 'c', 'd'].forEach(item => elements = {
  ...elements,
  [item]: document.getElementById(item)
});
const { a, b, c, d } = elements;
```

2:

```
☐  
export const foo;  
export const bar;  
export const kip;  
  
☒ ☐  
export const foo, bar, kip;
```

3:

```
☐  
a = d;  
b = d;  
c = d;  
  
☒ ☐  
a = b = c = d;
```

Task 5:

how to store the number 5 in 3 bits in C++

```
char x = 5;
```

```
x = x << 5;
```