

```
44 | System.out.println("Number of users to be generated: " + userNumber);
C:\WINDOWS\SYSTEM32\cmd.exe
3] User will have 3 names
User Name: Ngoc Alexandre Duplantis
1] Generating birthdate for user 87778
User 87778 has education level set to 2
User 87778 has phone number set to 088585042
User 87778 has skills set to : [3, 6, 7, 8, 9, 10, 12, 15, 19, 20, 21, 24, 26, 27, 28, 29, 30, 31, 34, 36, 37, 38, 39, 40, 48, 49]
Generating name for user 87779
User will have 2 names
User Name: Martim Kerney
Generating birthdate for user 87779
User 87779 has education level set to 5
User 87779 has phone number set to 622901349
User 87779 has skills set to : [3, 22, 23, 26, 29, 30, 31, 32, 33, 35, 41, 42, 46]
Generating name for user 87780
User will have 2 names
User Name: Alexandre Shaunte
Generating birthdate for user 87780
User 87780 has education level set to 4
User 87780 has phone number set to 396546585
User 87780 has skills set to : [4, 13, 14, 15, 16, 19, 22, 25, 28, 30, 31, 36, 38, 41, 43, 48, 49]
Generating name for user 87781
User will have 4 names
User Name: Ezell Tegan Threet Tegan
Generating birthdate for user 87781
User 87781 has education level set to 2
User 87781 has phone number set to 197508889
User 87781 has skills set to : [10, 16, 20, 29, 33, 36, 45]
Generating name for user 87782
79 | fullName += namesList.get(ThreadLocalRandom.current().nextInt(0, namesList.size())) + " ";
```

GenData (Programa C)

- Cria dados para utilização pelo programa A

JobApplicationUI (Programa B)

- Insere dados de um utilizador na tabela de utilizadores

The screenshot shows a web application window titled "Company X Job Application Form". The form contains the following fields and options:

- Full Name:** A text input field containing "João Calgonite".
- Phone Number:** A text input field containing "963748604".
- Education Level:** A group of radio buttons with the following options: None, Primary School, High School (selected), Bachelor's Degree, Master's Degree, and Doctorate.
- Skills:** A grid of checkboxes for various skills. The checked skills are: English, Esperanto, Biology, Mathematics, Military, and Violin.
- Birthdate (dd-mm-yyyy):** Three text input fields containing "29", "12", and "1992".
- Buttons:** "Reset" and "Submit" buttons at the bottom right.

Skill	Selected
Architecture	No
Chinese	No
Journalism	No
Objective C	No
Soldering	No
BSD	No
Component-level Repair	No
Korean	No
Octave	No
Spanish	No
Ballet	No
Drums	No
Linux	No
Orchestra	Yes
Speaking	No
Bash	No
English	Yes
Lua	Yes
PR	No
Translation	No
Bass	No
Esperanto	Yes
MIPS Assembly	No
Plumbing	No
Unix	No
Biology	Yes
Git	No
MatLab	No
Police	No
Violin	Yes
Biotechnology	No
Graphical Design	No
Mathematics	Yes
Portuguese	No
Windows	No
C	No
Guitar	No
Medicine	No
Python	No
Writing	No
C#	No
Japanese	Yes
Military	Yes
Reading	No
iOS	No
C++	No
Java	No
Network Security	No
Server Maintenance	No
macOS	No

```
C:\WINDOWS\system32\cmd.exe
Loaded skill list (50).
Loaded user list (100).
Loaded job list (3).
Job : T
Ideal Skillset : [5, 11, 20]
=====Perfect Match Search=====
Found perfect match for T :
User ID: 1
Name: Buss Mash Mafalda Reda
Education Level: 3
Skill Number: 34
Skills: [Architecture, BSD, Ballet, Bass, Biology, Biotechnology, C, C#, C++, Chinese, Component-level Repair, English, Esperanto, Japanese, Java, Journalism, Korean, Linux, Lua, MIPS Assembly, MatLab, Medicine, Objective C, Orchestra, PR, Plumbing, Police, Portuguese, Soldering, Spanish, Speaking, Translation, Unix, Writing]
Found perfect match for T :
User ID: 59
Name: Sapien Reda
Education Level: 2
Skill Number: 34
Skills: [BSD, Ballet, Bass, Biology, Biotechnology, C, C#, Chinese, Component-level Repair, Drums, Git, Graphical Design, Guitar, Japanese, Java, Journalism, Korean, Linux, Lua, MatLab, Mathematics, Network Security, Octave, Orchestra, PR, Plumbing, Police, Portuguese, Reading, Soldering, Spanish, Speaking, Windows, Writing]
Found perfect match for T :
User ID: 65
Name: Butz Risch Sowards
Education Level: 4
Skill Number: 33
Skills: [Ballet, Bash, Bass, Biology, Biotechnology, C, C#, Chinese, Component-level Repair, English, Git, Graphical Design, Guitar, Japanese, Java, Korean, Linux, Lua, MatLab, Mathematics, Medicine, Military, Network Security, Objective C, PR, Plumbing, Police, Reading, Server Maintenance, Spanish, Unix, Windows, Writing]
```

- É o principal módulo do projecto
- Analisa os dados na tabela
- Elimina utilizadores não-relevantes
- Produz ficheiros CSV com os resultados

Programa A (Main)

C:\WINDOWS\system32\cmd.exe

```
User data for job Chinese-English Translator :
User ID: 51
Name: Kellie Renee
Education Level: 0
Skill Number: 0
Skills: []
Similarity Index: 0.0
Current user list size: 92
Removed users with similarity index below 0.3.
Final user list size: 31
=====Printing Data to CSV File=====
Original User List Size: 100
Relevant Users: 35 (35.0%)
Perfect Users: 9 (9.0%)
File Name: T_perfect.csv
File Name: T.csv
=====Printing Data to CSV File=====
Original User List Size: 100
Relevant Users: 51 (51.0%)
Perfect Users: 0 (0.0%)
File Name: Test_perfect.csv
File Name: Test.csv
=====Printing Data to CSV File=====
Original User List Size: 100
Relevant Users: 35 (35.0%)
Perfect Users: 4 (4.0%)
File Name: Chinese-English Translator_perfect.csv
File Name: Chinese-English Translator.csv
=====DONE=====
```

Resultados

	A	B	C	D	E	F	G
1	Average Skill Number:	22.6862745098039	Job:	Test			
2	ID	NAME	SKILL NAMES	EDUCATION LEVEL	AGE	PHONE NUMBER	
3		80 Jose Kleiner Rui	Architecture; Ballet; Bash; Bass; Biology; Biotechnology; C#; C++; Component-level Repair	Master's Degree	22	497745183	
4		7 Jose	Architecture; Ballet; Bash; Bass; C; C#; Chinese; Drums; Git; Graphical Design; Guitar	None	23	348377143	
5		3 Derek Margy Mario Jorge	Architecture; Ballet; Bash; Bass; Biology; Biotechnology; C#; C++; Component-level Repair	High School	20	405397964	
6		55 Margy Tiara Arnette	Architecture; Ballet; Bash; Bass; Biology; C#; Esperanto; Japanese; Mathematics; Python	Master's Degree	19	6119713	
7		89 Margy Sage	Architecture; BSD; Bash; Bass; Biology; C; C#; C++; Component-level Repair; English	Bachelor's Degree	19	727816946	
8		85 Kerney	Architecture; BSD; Bash; Bass; Biotechnology; C; C#; Component-level Repair; Drums	Doctorate	20	730754374	
9		74 Sleeper	Architecture; BSD; Bash; Bass; Biology; Chinese; English; Git; Japanese; Java; JavaScript	Master's Degree	24	537745802	
10		70 Rone	Architecture; BSD; Bash; Bass; Biology; Chinese; Drums; English; Git; Graphical Design	None	25	730244228	
11		79 Shaunte Domingo	Architecture; Bash; Bass; Biology; Biotechnology; C; C++; Chinese; Component-level Repair	Doctorate	26	370633735	
12		58 Loux Matos Reda	Architecture; BSD; Bass; Biology; Biotechnology; C; C#; Drums; Git; Graphical Design	Primary School	25	776182106	
13		96 Tegan Shank McKeighan Ma	Architecture; Bash; Bass; Biology; C; C#; Chinese; Drums; Esperanto; Git; Graphical Design	Master's Degree	23	270409128	
14		76 Margherita An	Architecture; BSD; Bass; Biology; Biotechnology; C; C#; Chinese; Component-level Repair	Bachelor's Degree	23	35098676	
15		6 Jose Mabon	Architecture; BSD; Bass; Biotechnology; C#; Chinese; Drums; Git; Graphical Design; Guitar	Master's Degree	23	162997285	
16		73 Simon Arnette Folson	Architecture; Bash; Biology; Component-level Repair; Esperanto; Linux; Octave; Python	High School	26	22556504	
17		47 Deidre	Architecture; Ballet; Bash; Biology; Biotechnology; C#; C++; Component-level Repair	Doctorate	19	191742665	
18		15 Jorge Reda Sapien	Ballet; Bash; Bass; Biology; Biotechnology; C#; C++; Component-level Repair; Drums	Bachelor's Degree	20	622074039	
19		59 Sapien Reda	BSD; Ballet; Bass; Biology; Biotechnology; C; C#; Chinese; Component-level Repair; Drums	High School	26	574519783	
20		65 Butz Risch Sowards	Ballet; Bash; Bass; Biology; Biotechnology; C; C#; Chinese; Component-level Repair	Master's Degree	23	768401137	
21		78 Shank Luis Simon	Ballet; Bash; Bass; Biology; Biotechnology; C#; Component-level Repair; Drums; English	None	25	799963805	
22		32 Luis Townsend Simon An	Architecture; Ballet; Biotechnology; C; C#; Chinese; Component-level Repair; Drums	Primary School	23	952241282	
23		5 Dipalma	BSD; Ballet; Bass; C#; Chinese; Drums; English; Esperanto; Git; Graphical Design; Java	Primary School	25	824856532	
24		22 Aletha Risch Lettie Shank	Ballet; Bash; Bass; Biology; Biotechnology; Component-level Repair; Git; Korean; Linux	Master's Degree	21	374650898	
25		10 Francesca Sowards Whitney	BSD; Ballet; Bass; Biotechnology; Drums; Journalism; Linux; Lua; Military; Network Security	Bachelor's Degree	21	613026472	
26		4 Mabon Townsend	Architecture; BSD; C++; Drums; English; Esperanto; Git; Graphical Design; Guitar; Java	High School	21	252884414	
27		99 Tiara	Architecture; BSD; C++; Chinese; Drums; English; Graphical Design; Guitar; Japanese	Doctorate	22	133274678	
28		45 Kerney Folson	Architecture; Bash; Biotechnology; Chinese; Esperanto; Git; Graphical Design; Japan	None	24	656722609	
29		54 Margherita	Ballet; Bass; Biotechnology; C++; Graphical Design; Linux; Lua; MIPS Assembly; Net	Bachelor's Degree	20	776857963	
30		38 Aletha	Ballet; Bass; Biotechnology; Graphical Design; Lua; MIPS Assembly; Network Security	Master's Degree	26	199122025	
31		35 Evalyn	Bash; Bass; Biology; C#; C++; Component-level Repair; Drums; Git; Graphical Design	Master's Degree	20	637620557	
32		46 Sherlene	BSD; Bass; Biology; Biotechnology; C; Chinese; Component-level Repair; Git; Graphics	Bachelor's Degree	21	384842741	
33		92 Kendra Evalyn Birdie Mash	Bash; Bass; Biology; Biotechnology; Chinese; Component-level Repair; Drums; Esperanto	High School	19	185014223	
34		40 Degen Mash Griselia	Architecture; Component-level Repair; Drums; English; Esperanto; Guitar; Japanese	Doctorate	21	32503654	
35		18 Neeld Jacox	Architecture; Biology; Biotechnology; C; C++; Chinese; Esperanto; Git; Guitar; Japanese	High School	19	852064477	
36		62 Alexandre Mario Townsend	Architecture; C++; Component-level Repair; English; Esperanto; Graphical Design; Guitar	Master's Degree	21	856377060	
37		50 Buss Whitney Jennell Evalyn	BSD; Bass; Biology; C; C#; Drums; Guitar; Java; Korean; Linux; MatLab; Network Security	Doctorate	20	16821123	
38		67 Duplantis Alexandre Evalyn	Architecture; Biology; Biotechnology; C; Chinese; Drums; English; Git; Graphical Design	Master's Degree	26	12177074	
39		20 Martim Ngoc	Architecture; Git; Journalism; Korean; MIPS Assembly; MatLab; Medicine; Military; Octave	None	19	664138132	
40		25 Domingo	Architecture; Biology; C#; Drums; English; Esperanto; Linux; Mathematics; Server Mail	Doctorate	21	247417078	
41		63 Reda	BSD; Bass; C; C++; Guitar; Japanese; Linux; Plumbing; Police; Unix; Windows; iOS	Master's Degree	19	324028994	
42		98 Ammerman Butz	Architecture; Chinese; Component-level Repair; Git; MatLab; Military; Objective C; Octave	Primary School	20	99094794	
43		75 Deidre	Architecture; C++; Chinese; Drums; Japanese; Java; Octave; Plumbing	High School	25	463501712	
44		8 Arnette Kendra Sowards	Architecture; Java; MatLab; Mathematics; Objective C; Octave; Portuguese	Bachelor's Degree	20	405968202	
45		66 Alexandre	Bass; Biology; Biotechnology; C; Chinese; Guitar; Journalism; Korean; Lua; MIPS Assembly	Master's Degree	20	36760309	