```
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ g++ -std=c++11 mysource.cpp -o mastermind
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 6
 123456
 0 2
 654321
 1 1
 654123
 2 0
 654213
 1 1
 654132
 2 0
 645132
 1 1
 564123
 2 0
 ab41cd
 2 2
 ba41dc
 4 0
 b541dc
 4 0
 b541cd
 2 2
 e741dc
 5 0
 e841dc
 4 1
 8741dc
 FOUND 14
emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$
```

```
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ q++ -std=c++11 mysource.cpp -o mastermind
emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -u 12345a
 3215a6
  1 4
  123abc
  3 1
  1234a5
  4 2
  12345a
  FOUND 4
o emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$
```

```
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ q++ -std=c++11 mysource.cpp -o mastermind
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r
 E0
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 12345a a12345
  E<sub>0</sub>
emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind - 12345a
  E0
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 0
 E0
emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 100
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 10
  123
 E1
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 3
 123456789a
  F1
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 5
 123klm
 E1
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 5
 123kl
 E2
 123ei
  E2
 12345
 0 0
  abcde
 0 2
 678ab
 0 2
 9cde
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r -5
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -u 11111
emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$
```

```
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ mv mysource.cpp muhammed_emir_kara_PA1.cpp
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ g++ -std=c++11 muhammed_emir_kara_PA1.cpp -o mastermind
• emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -r 6
 123456
 1 0
 789abc
 0 5
 abc789
 1 4
 acb789
 1 4
 acb987
 0 5
 879cba
 0 5
 987bac
 1 4
 cba798
 2 3
 cab798
 2 3
 bca798
 1 4
 c798ab
 3 2
 c789ab
 3 2
 c798ba
 1 4
 c798ba
 1 4
 c798ab
 3 2
 c987ab
 5 0
 a987a1
 E2
 c987a1
 4 0
 c9871b
 4 0
 c981ab
 4 0
 c917ab
 5 0
 c927ab
 5 0
 c937ab
 FOUND 23
o emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$
```

```
emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ q++ -std=c++11 muhammed emir kara PA1.cpp -o mastermind
emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$ ./mastermind -u 130456
 123 45a
   132 45a
  4 0
 013456
  130456
 FOUND 4
o emir@ubuntu22:~/Desktop/GTU-UNIVERSITYASSIGNMENTS/CSE241/PA1$
```