

SUMMER  
IS  
COMING



GAME OF THRONES



# My code is my resume

"Geektrust has tie ups with some of the best startups. And all one got to do is write code, the rest is taken care by the geektrust team."

- Athira, now works at [Sahaj Soft](#)

*Athira, Souranil and many more developers have solved Geektrust coding challenges to find great jobs.*

- \* **Get feedback** on your coding skills. Detailed, handcrafted feedback on your code.
- \* **Get priority** and be treated as a premium candidate to directly connect with decision makers at companies.
- \* **Get membership** and win an exclusive Geektrust DEVELOPER t-shirt given when you write good code.

What we look for in your code - It's not just about getting output, but how you get it. We care about how well modelled your code is, how readable, extensible, well tested it is. Have questions on the challenges or our evaluation? Ping us on the Geektrust [Slack channel](#).



# PROBLEM 1: A GOLDEN CROWN

There is no ruler in the universe of Southeros and pandemonium reigns. Shan, the gorilla king of the Space kingdom wants to rule all Six Kingdoms in the universe of Southeros. He needs the support of 3 more kingdoms to be the ruler.





Each kingdom has an animal emblem and Shan needs to send a message with the animal in the message to win them over.

LAND emblem - Panda, WATER emblem - Octopus, ICE emblem - Mammoth, AIR emblem - Owl, FIRE emblem - Dragon.



**Your coding challenge is to have King Shan send secret message to each kingdom and win them over.**

Once he wins 3 more kingdoms, he is the ruler! The secret message needs to contain the letters of the animal in their emblem. For example, secret message to the Land kingdom (emblem: Panda) needs to have the letter 'p','n','d' at-least once and 'a' at-least twice. If he sends "**a1d22n333a4444p**" to the Land kingdom, he will win them over.

# PROBLEM 1- SAMPLE INPUT OUTPUT

Who is the ruler of Southeros?

**Ouput:** None

Allies of Ruler?

**Output:** None

**Input Messages to kingdoms from King Shan:**

**Input:** Air, "oaaawaala"

**Input:** Land, "a1d22n333a4444p"

**Input:** Ice, "zmzmzmzaztzozh"

Who is the ruler of Southeros?

**Output:** King Shan

Allies of Ruler?

**Output:** Air, Land, Ice

Who is the ruler of Southeros?

**Output:** None

Allies of King Shan?

**Output:** None

**Input Messages to kingdoms from King Shan:**

**Input:** Air, "Let's swing the sword together"

**Input:** Land, "Die or play the tame of thrones"

**Input:** Ice, "Ahoy! Fight for me with men and money"

**Input:** Water, "Summer is coming"

**Input:** Fire, "Drag on Martin!"

Who is the ruler of Southeros?

**Output:** King Shan

Allies of King Shan?

**Output:** Air, Land, Ice, Fire

# PROBLEM 2: BREAKER OF CHAINS

The other kingdoms in the Universe also yearn to be the ruler of Southeros and war is imminent! The High Priest of Southeros intervenes and is trying hard to avoid a war and he suggests a ballot system to decide the ruler.

Your coding challenge is to help the High Priest choose the ruler of Southeros through the ballot system.

## **Rules of the Ballot system**

1. Any kingdom can compete to be the ruler.
2. They should send a message to all other kingdoms asking for allegiance.
3. This message will be put in a ballot from which the High Priest will pick 6 random messages.
4. The High Priest then hands over the 6 messages to the respective receiving kingdoms.
5. The kingdom that receives the highest number of allegiance is the ruler.

### **Rules to decide allegiance by a kingdom**

1. The receiving kingdom has to give allegiance to the sending kingdom if the message contains the letters of the animal in their emblem (same as problem 1).
2. If the receiving kingdom is competing to be the ruler, they will not give their allegiance even if the message they received is correct.
3. A kingdom cannot give their allegiance twice. If they have given their allegiance once, they will not give their allegiance again even if they get a second message and the message is correct.

### **In case there is a tie**

1. If there is a tie, the whole ballot process is repeated but only with the tied kingdoms till there is a winner.

### **Sending messages**

The format of the message dropped in the ballot should contain :

- The Sender kingdom
- The Receiver kingdom
- The Message (should be selected randomly from the messages provided in the table below)

# TABLE WITH MESSAGES

Summer is coming

a1d22n333a4444p

oaaawaala

zmzmzmzaztzozh

Go risk it all

Let's swing the sword together

Die or play the tame of thrones

Ahoy! Fight for me with men and money

Drag on Martin!

When you play the tame of thrones you win or you die.

What could we say to the Lord of Death? Game on?

Turn us away and we will burn you first

Death is so terribly final while life is full of possibilities.

You Win or You Die

His watch is Ended

Sphinx of black quartz judge my dozen vows

Fear cuts deeper than swords My Lord.

Different roads sometimes lead to the same castle.

A DRAGON IS NOT A SLAVE.

Do not waste paper

Go ring all the bells

Crazy Fredrick bought many very exquisite pearl emerald and diamond jewels.

The quick brown fox jumps over a lazy dog multiple times.

We promptly judged antique ivory buckles for the next prize.

Walar Morghulis: All men must die.

The message list can also be found in

<https://gist.github.com/dhanush/8374c96fd6be4af08cde4852572ee396>



# PROBLEM 2- SAMPLE INPUT OUTPUT

Who is the ruler of Southeros?

**Output:** None

Allies of Ruler?

**Output:** None

Enter the kingdoms competing to be the ruler:

**Input:** Ice Space Air

(the messages should now be randomly picked from the given table for each).

Results after round one ballot count

**Output:** Allies for Ice : 2

**Output:** Allies for Space: 1

**Output:** Allies for Air: 1

Who is the ruler of Southeros?

**Output:** Ice

Allies of Ruler?

**Output:** Land Fire

Who is the ruler of Southeros?

**Output:** None

Allies of Ruler?

**Output:** None

Enter the kingdoms competing to be the ruler:

**Input:** Land Air

Results after round one ballot count

**Output:** Allies for Land : 1

**Output:** Allies for Air: 1

Results after round two ballot count

**Output:** Allies for Land : 1

**Output:** Allies for Air: 2

Who is the ruler of Southeros?

**Output:** Air

Allies of Ruler?

**Output:** Fire Space

Who is the ruler of Southeros?

**Output:** None

Allies of Ruler?

**Output:** None

Enter the kingdoms competing to be the ruler:

**Input:** Fire Space

Results after round one ballot count

**Output:** Allies for Fire : 0

**Output:** Allies for Space: 0

Results after round two ballot count

**Output:** Allies for Fire : 1

**Output:** Allies for Space: 2

Who is the ruler of Southeros?

**Output:** Space

Allies of Ruler?

**Output:** Land Ice



# WHAT WE LOOK FOR IN YOUR CODE

Remember that it is not just about getting the output, but how you get it. We care about how well modelled your code is, how readable, extensible, well tested it is.

*Note:* In cases where there is an edge case which is not mentioned in this problem statement, go-ahead and make an assumption. Just let us know what it is in a readme file.

# SUBMITTING CODE

1. Please compress the file before upload. We accept .zip, .rar, .gz and .gzip
2. Name of the file should have the name of the problems you have solved Set5Problem1.zip in this case
3. Upload the file in a way that makes it easy for us to get it running. This will factor into your evaluation.
4. Usage of non-essential 3rd party libraries will affect your evaluation.
5. We advise not to put your personal details in your solution as we maintain your anonymity with a company until there is genuine interest from them.



# NEED HELP?

1. We know it's possible you may have more questions on the coding challenges. So we're available on our Slack chat channel for you. You can come in and ask questions and get all the support you need.
2. Just send a mail to [devs@geektrust.in](mailto:devs@geektrust.in) saying 'Add to Slack' and we'll send you an invite to join our channel, and we will help you out.
3. *You can also submit incomplete solutions if you want feedback to make sure you're going in the right direction. Just make sure to add INCOMPLETE as a prefix to the filename you're uploading e.g - INCOMPLETE-problem12.zip*

# WHAT NEXT?

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