

### WRITEUP: AN EASY JOB FOR THE INTERN

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Welcome to my first challenge/write-up! :D Enjoy and thank you for joining us in Battle of Hackers 2021!

## Question

Hooray! Today marks the first day of your internship! Your boss, Kim Jung Hmm slips a piece of paper to you and whispered to you: "Find the flag, and you shall be rewarded with social credits;D"

You looked at the paper and thought to yourself, "Oh dear god what have I stepped into..."

Flag Format: BOH21{Your\_Answer\_Here}

Dear intern,

If you want the social credits, you'll have to solve a very simple puzzle. It's totally easy and I believe that's gonna be a no brainer for you right intern?

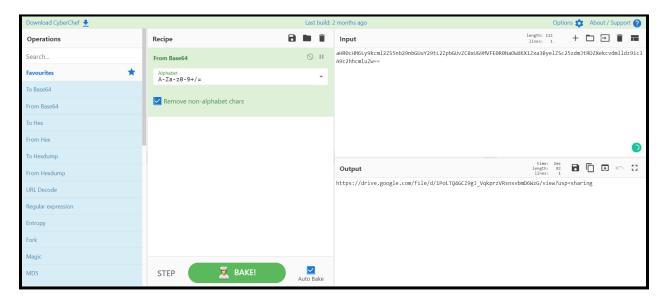
aHR0cHM6Ly9kcml2ZS5nb29nbGUuY29tL2ZpbGUvZC8xUG9MVFE0R0NaOWdKX1Z xa3ByelZSc25zdmJtRDZXekcvdmlldz91c3A9c2hhcmluZw==

> Sincerely, Kim Jung Hmm

File Attached to the Question

A == at the end of the string indicates that it's Base 64, so if you extracted the string using OCR or manually typed it yourself (Kudos to people who typed the string manually goddamn) to decode it, you will get a link:

https://drive.google.com/file/d/1PoLTQ4GCZ9gJ\_VqkprzVRsnsvbmD6WzG/view?usp=s
haring WHY C4N7 MY 8055 83 M0r3 D1r3C7.png



Cyberchef Output

```
65.30293993792456,16.304417546560703
63.26756466547663,15.724336202909885
61.04373122655721,15.425505932142674
71.9669617190645,-38.71510297460324
72.03756841550499,-47.24049359960324
60.92436336779236,24.952841099073826
63.29917515241949,25.216512974073826
65.67485640680874,24.75947528677219
70.69582203498189,-47.18776137037045
70.84057317075113,-39.33034271402127
62.579496924582315,63.11494081812137
62.84543555115912,54.37861054735416
61.03522055634316,54.22040313081973
69.16436739803163,-39.136987630555694
69.19560666194783,-47.2405043284393
61.043732525127,62.49970107870334
58.725241241184484,62.27118223505252
58.8800299414042,54.3082883914017
71.9669617190645,-38.71510297460324
72.03756841550499,-47.24049359960324
61.483189532035816,129.26140695410007
66.04864650385308,133.46257775621646
61.96613848179748,138.64812463121646
70.69582203498189,-47.18776137037045
70.84057317075113,-39.33034271402127
64.11678916415222,131.5894121551551
64.11666060790827,132.56608694391483
64.21623828470757,135.4313191731476
69.16436739803163,-39.136987630555694
69.19560666194783,-47.2405043284393
```

File Shown in the Link (A List of Latitudes and Longitudes)

Why is this long list of coordinates not in a txt file but in png? Hmm maybe we would have to do a little steganography OwO

Now, if you adjust the brightness and contrast of the picture using any software (I use Microsoft Word Imao, but increasing the brightness of your screen will work too), you will see this hidden dialogue:

```
"What?"
"Hey, do you know the boss hates coming 4th, 5th, 9th, and 10th in a race?"
"Why so?"
"Don't know, but legend says that he fires an employee in the
company when he got these positions"
"That's scary..."
```

#### Hidden Dialogue

"Psst!"

"What?"

"Hey, do you know the boss hates coming 4th, 5th, 9th, and 10th in a race?"

"Why so?"

"Don't know, but legend says that he fires an employee in the company when he got these positions"

"That's scary..."

The dialogue suggests that the 4th, 5th, 9th, and 10th should be "fired" or in a way --- removed. Hence, If you removed the 4th, 5th, 9th, and 10th coordinates, you'll be left with 6 coordinates per paragraph. (Hmmm do you see a pattern here OwO)

65.30293993792456,16.304417546560703 63.26756466547663,15.724336202909885 61.04373122655721,15.425505932142674 71.9669617190645,-38.71510297460324 72.03756841550499,-47.24049359960324 60.92436336779236,24.952841099073826 63.29917515241949,25.216512974073826 65.67485640680874,24.75947528677219 70.69582203498189,-47.18776137037045 70.84057317075113,-39.33034271402127

62.579496924582315,63.11494081812137 62.84543555115912,54.37861054735416 61.03522055634316,54.22040313081973 69.16436739803163,-39.136987630555694 69.19560666194783,-47.2405043284393 61.043732525127,62.49970107870334 58.725241241184484,62.27118223505252 58.8800299414042,54.3082883914017 71.9669617190645,-38.71510297460324 72.03756841550499,-47.24049359960324

61.483189532035816,129.26140695410007 66.04864650385308,133.46257775621646 61.96613848179748,138.64812463121646 70.69582203498189,-47.18776137037045 70.84057317075113,-39.33034271402127 64.11678916415222,131.5894121551551 64.11666060790827,132.56608694391483 64.21623828470757,135.4313191731476 After removal of the 4th, 5th, 9th, and 10th coordinates:

```
65.30293993792456,16.304417546560703
63.26756466547663,15.724336202909885
61.04373122655721,15.425505932142674
60.92436336779236,24.952841099073826
63.29917515241949,25.216512974073826
65.67485640680874,24.75947528677219
```

62.579496924582315,63.11494081812137 62.84543555115912,54.37861054735416 61.03522055634316,54.22040313081973 61.043732525127,62.49970107870334 58.725241241184484,62.27118223505252 58.8800299414042,54.3082883914017

61.483189532035816,129.26140695410007 66.04864650385308,133.46257775621646 61.96613848179748,138.64812463121646 64.11678916415222,131.5894121551551 64.11666060790827,132.56608694391483 64.21623828470757,135.4313191731476

Now all you need to do is put all these coordinates on the world map by geolocalization and link them together by connecting the dots using a geolocalization tool (I use dcode.fr), you'll see the flag.

You could put all these coordinates together or a paragraph at a time, the output is still clearly visible. (You can read the letters from left to right on the map)







First 6 coordinates

Next 6 coordinates

Final 6 coordinates

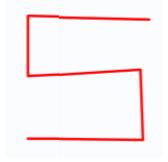
#### **FLAG**

# BOH21{USA}

Fun Fact: If you put the coordinates you removed on the flag in order and remove the duplicate coordinates you'll be left with:

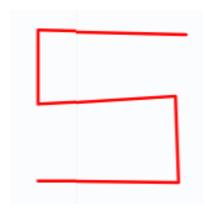
71.9669617190645,-38.71510297460324
72.03756841550499,-47.24049359960324
70.69582203498189,-47.18776137037045
70.84057317075113,-39.33034271402127
69.16436739803163,-39.136987630555694
69.19560666194783,-47.2405043284393

What does it spell?



And what does it make?

# YOU







And that is why Kim Jung Hmm hates the 4th, 5th, 9th, and 10th. Anyways that's all! Have a good day ahead guys :3

Feel free to find me if u have any questions (Or just want to make friends Imao):

- m
- PLZ ENTER TEXT #1048
- in
  - Chang Shiau Huei
- O
- shortgun\_04

Now excuse me cuz I have to write the post-event report

