

Forum:[Hack Forums](#)

Thread: [Challenge me](#)

pms - December 9, 2018, 8:29 am

hi,

I'm in need of something to do with java, give me some tips/challenges on what i can code. And i will provide you the code via pastebin.

experience level: know a bit more then the basics.

Tenno - December 9, 2018, 9:09 am

(Dec 9, 2018 09:29 AM)pms. Wrote: [\[CITE\]](#) hi,

I'm in need of something to do with java, give me some tips/challenges on what i can code. And i will provide you the code via pastebin.

If you'd like a challenge, I am looking to make a Java application that executes Powershell code, however, the app will need in integrated Powershell console. Maybe you could attempt to make that?

Not sure what your level of expertise is at Java, but this could be a nice challenge.

Happy coding!

pms - December 9, 2018, 9:29 am

(Dec 9, 2018 10:09 AM)Tenno Wrote: [\[CITE\]](#) If you'd like a challenge, I am looking to make a Java application that executes Powershell code, however, the app will need in integrated Powershell console. Maybe you could attempt to make that?

Not sure what your level of expertise is at Java, but this could be a nice challenge.

Happy coding!

Yeah thats way to far from my experience level, forgot to add that to the thread.

hash - December 10, 2018, 2:48 am

A fun challenge is to make a tic tac toe with the console. Think about how you deal with a draw (should be triggered when there will be no winner in advance), winning and losing.

What software patterns are you going to use? And make it in a way that the GUI (console) is detachable so you can always change that out.

pms - December 10, 2018, 5:00 am

(Dec 10, 2018 03:48 AM)Sapporo Wrote: [\[CITE\]](#) A fun challenge is to make a tic tac toe with the console. Think about how you deal with a draw (should be triggered when there will be no winner in advance), winning and losing.

What software patterns are you going to use? And make it in a way that the GUI (console) is detachable so you can always change that out.

Fantastic idea, going to try this out once i get home.

(Dec 10, 2018 03:48 AM)Sapporo Wrote: [\[CITE\]](#) A fun challenge is to make a tic tac toe with the console. Think about how you deal with a draw (should be triggered when there will be no winner in advance), winning and losing.

What software patterns are you going to use? And make it in a way that the GUI (console) is detachable so you can always change that out.

I started the project, after around 30 minutes i gave up completely, it was way out of my skillset. Kinda made me mad that I was'nt able to do it, but ill get there some day.

hash - December 10, 2018, 7:29 am

(Dec 10, 2018 06:00 AM)pms. Wrote: [\[CITE\]](#) Fantastic idea, going to try this out once i get home.

I started the project, after around 30 minutes i gave up completely, it was way out of my skillset. Kinda made me mad that I was'nt able to do it, but ill get there some day.

Haha it is often one of the first things you program when in uni. Start by

You have 9 places to put your X or O in.

Code public static final int ROWS = 3, COLS = 3; // number of rows and columns

public static int[][] board = new int[ROWS][COLS]; // game board in 2D array =)

public static int currentState; // the current state of the game

public static int currentPlayer; // the current player (X or O)

Now use a scanner to receive input. something like row/col

11 = left top

33 = right bottom

pms - December 10, 2018, 7:42 am

(Dec 10, 2018 08:29 AM)Sapporo Wrote: [\[CITE\]](#) Haha it is often one of the first things you program when in uni. Start by

You have 9 places to put your X or O in.

Code public static final int ROWS = 3, COLS = 3; // number of rows and columns

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public static int currentState; // the current state of the game

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Now use a scanner to receive input. something like row/col

11 = left top

33 = right bottom

Thanks for the help, still cant manage to do it, what would you recommend me reading more on?

hash - December 10, 2018, 7:51 am

(Dec 10, 2018 08:42 AM)pms. Wrote: [\[CITE\]](#) Thanks for the help, still cant manage to do it, what would you recommend me reading more on?

<https://www.instructables.com/id/Make-Tic-Tac-Toe-in-Java/>

This is a really good tutorial that goes in-depth how to make tic tac toe. It has nice emphasis on software design and what classes do and stuff. Don't just copy code, read the text and type the code yourself so you get a feel for it!

pms - December 10, 2018, 7:52 am

(Dec 10, 2018 08:51 AM)Sapporo Wrote: [\[CITE\]](#)

<https://www.instructables.com/id/Make-Tic-Tac-Toe-in-Java/>

This is a really good tutorial that goes in-depth how to make tic tac toe. It has nice emphasis on software design and what classes do and stuff. Don't just copy code, read the text and type the code yourself so you get a feel for it!

Thank you once again. Ill read through the text and tell you how it goes.

hash - December 10, 2018, 7:52 am

(Dec 10, 2018 08:52 AM)pms. Wrote: [\[CITE\]](#) Thank you once again. Ill read through the text and tell you how it goes.

Looking forward hearing from you!

jammy47 - December 10, 2018, 10:57 am

may be try a code injector.

pms - December 10, 2018, 11:00 am

(Dec 10, 2018 11:57 AM)jammy47 Wrote: [\[CITE\]](#) may be try a code injector.

I dont think you fully read the thread, thats way beyond my skill level.

jammy47 - December 10, 2018, 11:01 am

(Dec 10, 2018 12:00 PM)pms. Wrote: [\[CITE\]](#) I dont think you fully read the thread, thats way beyond my skill level.

I think you are underestimating yourself. If you only see the logic behind a c++ code injector, you will actually laugh. Try harder bro.

pms - December 10, 2018, 11:11 am

(Dec 10, 2018 12:01 PM)jammy47 Wrote: [\[CITE\]](#) I think you are underestimating yourself. If you only see the logic behind a c++ code injector, you will actually laugh. Try harder bro.

c++? i dont even know c++ yet, what do you mean haha.

jammy47 - December 10, 2018, 11:15 am

(Dec 10, 2018 12:11 PM)pms. Wrote: [\[CITE\]](#) c++? i dont even know c++ yet, what do you mean haha.

Well, You dont have to be so much of a pro in c++ to understand code injection. Pm me if you need any help. Most of the times, windows itself will give you the power to abuse itself.

hash - December 11, 2018, 12:03 am

(Dec 10, 2018 12:01 PM)jammy47 Wrote: [\[CITE\]](#) I think you are underestimating yourself. If you only see the logic behind a c++ code injector, you will actually laugh. Try harder bro.

This doesn't make any sense. When starting out with learning a new language people should focus on architecture and how to organise code.

It's better to first understand basic Java and learn about UML/gang of four. When you understand all that, yes you can make a code injector.

Learning a language is not about programming some shitty ass injector, it's about understanding concepts.

GenericSkid - December 11, 2018, 10:25 am

(Dec 10, 2018 12:15 PM)jammy47 Wrote: [\[CITE\]](#) Well, You dont have to be so much of a pro in c++ to understand code injection. Pm me if you need any help. Most of the times, windows itself will give you the power to abuse itself.

1. You have not provided enough detail for anyone to know what you're even talking about. "Code injector" could mean a bunch of different things. Using intentionally bad data to mess with an existing program's logic (SQL / Input fields / etc)

Process hollower/injector

Privilege escalation + optionally a second feature of this list

Actually adding foreign code into some binary executable

Even if you meant one of these topics, I don't think this is what OP is asking for.

2. What is the deal with your C++ focus? This is the Java section. The concepts and design approaches that are used in C++ applications don't always transfer into Java.

Here is a list of challenges, categorized by difficulty. It also includes some informative tidbits on the side.

Gerymc - December 11, 2018, 6:07 pm

I would try using processing. It allows you to write java and has lots of shapes and colors to use.

<https://processing.org/>

You could try making a game similar to the polkadotgame (<https://www.polkadotgame.com/>) where your mouse controls the location of a circle and you try and eat the smaller circles and avoid the bigger ones.

Here is how I made it

```
Code void setup(){  
  size(840,790);
```

```
  for(int i = 0; i < 19; i++){  
    diameter[i] = random(uDiameter/1.2,uDiameter*1.4);  
    posX[i] = random(0,840);  
    posY[i] = random(0,790);  
    speedY[i] = random(-3,3);  
    speedX[i] = random(-3,3);  
    //found how to make random ints here -
```

https://processing.org/discourse/beta/num_1250787959.html

```
    cColor[i] = int(random(1,4));  
  }  
}
```

[//https://processing.org/reference/Array.html](https://processing.org/reference/Array.html)

```
int[] cColor = new int[19];  
float[] diameter = new float[19];  
float[] red = new float[19];  
float[] green = new float[19];  
float[] blue = new float[19];  
float[] speedY = new float[19];  
float[] speedX = new float[19];  
float[] posX = new float[19];
```

```
float[] posY = new float[19];
float stroke = 145;
float uDiameter = 20;
int score = 0;
boolean gameOver = false;
boolean gamePaused = false;
```

```
void draw(){
```

```
    background(195,210,210);
```

```
    if(keyPressed){
```

```
        if(key == 'p' || key == 'P'){
```

```
            gamePaused = true;
```

```
        }
```

```
        if((key == 'u' || key == 'U') && gamePaused == true){
```

```
            gamePaused = false;
```

```
        }
```

```
    }
```

```
    for(int i = 0; i < 19; i++){
```

```
        fill(red[i],blue[i],green[i]);
```

```
        stroke(195, 210, 210);
```

```
        ellipse(posX[i], posY[i], diameter[i], diameter[i]);
```

```
    }
```

```
    if(gamePaused == false){
```

```
    for(int i = 0; i < 19; i++){
```

```
        if(cColor[i] == 1){
```

```
            red[i] = -365;
```

```
            green[i] = 255;
```

```
            blue[i] = 255;
```

```
        }
```

```
        if(cColor[i] == 2){
```

```
            red[i] = 108;
```

```
            green[i] = 215;
```

```
            blue[i] = 255;
```

```
        }
```

```
        if(cColor[i] == 3){
```

```
            red[i] = 31;
```

```
            green[i] = 195;
```

```
            blue[i] = 186;
```

```
        }
```

```
        if(cColor[i] == 4){
```

```
            red[i] = 255;
```

```
            green[i] = 255;
```

```
            blue[i] = 255;
```

```
        }
```

```
    posX[i] = posX[i] + speedX[i];
```

```
    posY[i] = posY[i] + speedY[i];
```

```

if(posX[i] < 0){
    posY[i] = random(0,790);
    posX[i] = 839;
    cColor[i] = int(random(1,4));
    speedX[i] = random(-3,-1);
    speedY[i] = random(-3,3);
    diameter[i] = random(uDiameter/1.2,uDiameter*1.4);
}
if(posX[i] > 840){
    posY[i] = random(0,790);
    posX[i] = 1;
    cColor[i] = int(random(1,4));
    speedX[i] = random(1,3);
    speedY[i] = random(-3,3);
    diameter[i] = random(uDiameter/1.2,uDiameter*1.4);
}
if(posY[i] < 0){
    posY[i] = 789;
    posX[i] = random(0,840);
    cColor[i] = int(random(1,4));
    speedX[i] = random(-3,3);
    speedY[i] = random(-3,-1);
    diameter[i] = random(uDiameter/1.2,uDiameter*1.4);
}
if(posY[i] > 790){
    posY[i] = 1;
    posX[i] = random(0,840);
    cColor[i] = int(random(1,4));
    speedX[i] = random(-3,3);
    speedY[i] = random(1,3);
    diameter[i] = random(uDiameter/1.2,uDiameter*1.4);
}

}
}

if(gameOver == true){
    fill(15);
    textSize(30);
    text("Game Over",350,380);
    textSize(20);
    text("Press 'Space' to restart.",320,410);
    if(keyPressed){
        if(key == 32){
            gameOver = false;
            uDiameter = 20;
            for(int i = 0; i < 19; i++){
                diameter[i] = random(uDiameter-5,uDiameter+40);
                score = 0;
            }
        }
    }
}

```

```

}

if(gameOver == false && gamePaused == false){

fill(15);
textSize(80);
text(score, 730, 80);

fill(15);
ellipse(mouseX, mouseY, uDiameter, uDiameter);
for(int i = 0; i < 19; i++){
  if(dist(posX[i],posY[i],mouseX,mouseY) < ((uDiameter/2)+(diameter[i]/2))){
    if(uDiameter < diameter[i]){
      gameOver = true;
    }
    if(uDiameter > diameter[i]){
      posX[i] = random(-100,940);
      posY[i] = random(0,790);
      diameter[i] = random(uDiameter/1.2,uDiameter*1.4);
      uDiameter = uDiameter + diameter[i]/30;
      score = score + 1;
    }
  }
}

}
}
}
}

```

The only thing I know I probably could have done better was the color generator. I had 4 different color sets with all their own R, G, B values and so I made a random integer from 1-4 and for example, if it were 1, it would be a certain color. I probably could have done that part better but I was not really sure how to

(Dec 11, 2018 11:25 AM)GenericSkid Wrote: [\[CITE\]](#) 1. You have not provided enough detail for anyone to know what you're even talking about. "Code injector" could mean a bunch of different things. Using intentionally bad data to mess with an existing program's logic (SQL / Input fields / etc)

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Hey, those challenges look cool but they only contain the name. Would you be able to post a link of where you got that and it goes more in-depth of what you're actually supposed to make?

jBloq - December 11, 2018, 9:14 pm

Given a square matrix, calculate the absolute different between the sum of its diagonals.

Example:

```
1 2 3
4 5 6
9 8 9
```

Left to right dialong = $1 + 5 + 9 = 15$, right to left is $3 + 5 + 9 = 17$. Absolute difference is $| 15 - 17 | = 2$

Sample input:

```
3
11 2 4
4 5 6
10 8 - 12
```

Example output:

15

You can use an array or a 2-Dimensional array to accomplish this task.
(make it for not only a 3 square matrix, but for 4, 5, 6 etc.)

jammy47 - December 12, 2018, 6:36 pm

(Dec 11, 2018 11:25 AM)GenericSkid Wrote: [\[CITE\]](#) 1. You have not provided enough detail for anyone to know what you're even talking about. "Code injector" could mean a bunch of different things. Using intentionally bad data to mess with an existing program's logic (SQL / Input fields / etc)

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Thats an amazing list you've put up and i was talking about process hollowing. Also i understand

that all of the c++ concepts dont transfer to java its true. But thanks so much for the list, its actually useful. Wish i could rep+ you.

pms - December 13, 2018, 3:00 am

(Dec 11, 2018 11:25 AM)GenericSkid Wrote: [\[CITE\]](#)

Managed to do a port scanner which im really happy about, i like this list, im sure it will come in handy.

edit -

There seem to be some problem with it, might need some help by anyone.

Aussie - December 14, 2018, 2:12 pm

Use kryonet to build a simple networking app (client-server architecture).

zeroday - December 22, 2018, 2:37 pm

(Dec 11, 2018 07:07 PM)Gerymc Wrote: [\[CITE\]](#) -snip-

If he does make a game like polkadotgame and it's web-based, check for XSS ffs lol

?

Vanagander - December 22, 2018, 5:15 pm

Create a method to encrypt a string with a Ceasar cipher and another to decrypt it.

jarituh - December 24, 2018, 8:53 am

(Dec 11, 2018 11:25 AM)GenericSkid Wrote: [\[CITE\]](#) 1. You have not provided enough detail for anyone to know what you're even talking about. "Code injector" could mean a bunch of different things. Using intentionally bad data to mess with an existing program's logic (SQL / Input fields / etc)

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Interesting ?

OBAMASELF - January 3, 2019, 8:48 pm

You should try this challenge.

-Input a real number in 24 hour tiome in the form HH.MM.CC, representing the hours(HH) and minutes(MM) of the booking, and the number of people the booking is for(CC)

- Validate that the booking time is between 0900 and 1630

- Validate that the minutes are in the range 0 to 59

- The maximum capacity of any booking is 20 people
- If the hours, minutes or capacity are invalid, an error message should be printed (different error messages for each error)
- If the input is valid, your algorithm should print out a message

For Example:

INPUT	OUTPUT
1325.08 people at 13.25"	"Your booking is for 8
1380.08 between 0 and 59"	"Invalid time - minutes must be
2025.08 09:00 and 16:30"	"Invalid time - opening hours are between
1325.35 booking"	"Too many people for

Your algorithm should make good use of submodules brother. Give it a try. Worth a shot really. If you want me to check your results just PM me. I am more than happy to help.

splay - January 7, 2019, 3:00 pm

Implement a B tree, but with multiple children as nodes - no red black tree

???? - January 24, 2019, 3:47 am

maybe a code injector, mess around with asm and / or reflections if you want a challenge, make a simple and program and mess with it change variables or something.

chr0matic - January 28, 2019, 10:45 am

BattleShips with arrays are always fun

SIM-3364521 - February 6, 2019, 8:13 am

I have one for you to train arrays.

have a 2d array like this: `int[] array = new int[][]{{1,2,3,4},{5,6,7,8},{9,10,11,12},{13,14,15,16}};`

and iterate through it like a snail, so the output should be:

1,5,9,13,14,15,16,12,8,4,3,2,6,10,14,15,11,7,3

once you have that working for this array make it a method that takes any square 2d array and does that.

make sure to check if it is a valid square 2d array first and throw an exception if its not.