

## Franklin Perez: Number of Permutations for Seating N Guests in Round Table? (N-1)!

From: **Franklin Perez** (perezfranklin@hotmail.com)

Sent: Fri 10/07/11 9:05 PM

To: bob@bobrubano.com

Dear Mr. Bob Rubano:

My name is Franklin Perez, and I interviewed with you and Muhammad Yahia at 2:00 PM over the phone for the Java Developer (with Build Tools) contracting position at Disney. I would very much like the opportunity to show how much of an asset I can be for your project at Disney.

I now remember how many permutations exists for seating "N" number of guests in a round table. According to the <http://www.algebra.com/algebra/homework/Permutations/Permutations.faq.question.85120.html> hyperlink, it would be "(N-1)!" The "!" symbol means factorial. The concept of factorial is explained in the <http://en.wikipedia.org/wiki/Factorial> hyperlink.

So, 5! would equal  $5*4*3*2*1$ . So, if you were to try and seat 7 people, the number of possible seating arrangements would be  $(7-1)!$ , which would be  $6*5*4*3*2*1 = 720$ .

We could use the brute force approach to view every possible permutation of seating arrangements until a seating arrangement comes up that has nobody seated to someone else they dislike.

If you may please forward this to Muhammad Yahia, I would most greatly appreciate it. It will at least demonstrate that I put forth extra effort in finding a solution to the problem.

And again, I believe I would be a good asset to your project. I bring a lot to the table as part of my experience and second effort in finding solutions to problems.

Thanks,

Franklin Perez

Cell: (407) 694-7805

Home: (407) 977-1419

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From: perezfranklin@hotmail.com

To: bob@bobrubano.com

Subject: Franklin Perez: Found Solution to Guests Seating Arrangement Problem Presented by Muhammad Yahia

Date: Fri, 7 Oct 2011 20:31:17 +0000

Dear Mr. Bob Rubano:

My name is Franklin Perez, and I interviewed with you and Muhammad Yahia at 2:00 PM over the phone for the Java Developer (with Build Tools) contracting position. I would very much like the opportunity to show how much of an asset I can be for your project at Disney.

I found the solution to the following question that was asked of me by Muhammad Yahia: "We have invited  $n$  people to dinner. We have a big round table for the occasion, but we have a problem. Many of our guests don't

get along with one another. Every dislike is mutual. Indeed, each person may have up to  $\frac{1}{2}n-1$  enemies in the group. **Write an algorithm that creates a seating arrangement in which no person sits next to an enemy.**"

I found the solution at the <http://www.cs.uni.edu/~wallingf/teaching/153/sessions/session22.html> hyperlink.

Below are the two that I found:

Solution #1:

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```
seating = empty list
guests  = queue containing all guests

until guests is empty
  g = guests.dequeue()
  if g will sit by rightmost guest in seating,
    seat g there
  else if g will sit by leftmost guest in seating,
    seat g there
  else
    guests.enqueue(g)
```

Solution #2:

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```
seating = a random permutation of the guests

until all guests are happy
  work around the table,
  making a swap whenever we encounter a conflict
```

If you may please forward this to Muhammad Yahia, I would most greatly appreciate it. It will at least demonstrate that I put forth extra effort in finding a solution to the problem.

And again, I believe I would be a good asset to your project. I bring a lot to the table as part of my experience and second effort in finding solutions to problems.

Thanks,

Franklin Perez  
Cell: (407) 694-7805  
Home: (407) 977-1419

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From: CDunn@softwareresources.com  
To: perezfranklin@hotmail.com  
Date: Thu, 6 Oct 2011 09:29:14 -0400  
Subject: Disney 2nd phone interview (technical)

Hey Franklin,

You are 100% confirmed for your phone interview, **tomorrow Friday, October 7th at 2pm**. You must call their conference line at **1-877-290-0784**. After that, enter this **passcode: 854-127-9651** and then your interview will begin. You will be interviewing with **Muhammad Yahia** and **Bob Rubano**. If they aren't on the a line by 2:10pm please call me so we can figure out what happened.

You are interviewing for a **Java Developer** position with **Disney** – this is a **6 to 18 month contract** position in Orlando, FL

**Here is the complete job description:**

**6 to 18 month contract, Java Developer, Orlando, FL**

#### **General Job Description**

- Looking for an individual on the DevOps team with general Java Software Engineering skills centered around build and continuous integration technologies.
- This individual must have a strong Java background but must also be able to speak multiple software development languages.
- This individual must be able to quickly troubleshoot and resolve any manner of software related issues.

#### **Responsibilities**

- Continuous Integration strategy, growth and development
- Automation Test Framework strategy, growth and development
- General Technical Leadership and Support responsibilities
- Support Strategy Development and Road-Map for technical facets
- Provide the bridge between automation initiatives and dynamic infrastructure

#### **Skills**

- 8+ years Java Development
- 6+ years experience with **JUnit** frameworks
- 5+ years with build scripting tools like **Ant** or **Maven**
- 5+ years experience with **web site/service technologies, frameworks** and **platforms**
- 2+ years experience with Continuous Integration tools like **Bamboo** and/or **Hudson**

- Proven leadership experience
- Proven troubleshooting skills and techniques
- Proven ability to quickly assess tool/technology capabilities based on historical experience
- 1+ years **Agile** SDLC experience
- Thorough understanding of **XML** structure and parsing

#### **Things to remember:**

- Be enthusiastic!!! Ask intelligent questions about the position
- Smile
- Listen attentively when asked questions
- Enunciate, and speak with conviction
- Answer questions directly and clearly
- Make sure to ask the manager "what is the next step in the interview process?" (ask this towards the end of the interview).

#### **Things to avoid:**

- Speaking too loudly or too softly
- Giving indirect answers or avoiding questions
- Asking about benefits, time off and pay

Best of luck and please call me if you should have any questions before your interview. Please send me back an email to confirm you have received all of this information and most importantly, please **call me after your interview** for an update.

Carl Dunn  
Technical Recruiter  
**Software Resources**  
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