

Name of the student- SREE KRUNAL LODD

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COLLEGE NAME- MIT MANIPAL

BRANCH- COMPUTER SCIENCE AND ENGINEERING

Technical Questions

Language: Python

Q1 and Q2. The code is run on the book "War and Peace" written by Leo Tolstoy. The output of the code is a .xlsx file which is also attached along with this pdf file.

Q3. The time taken to run the application can be viewed when running the .ipynb file. In our test, the time taken for running the application was < 2 minutes.

Q4. The code written is highly generic and flexible. It has been tested on various pdf files (including the problem statement pdf file itself) and has given correct output for all of them.

Q5. The application could've been improved for better parsing the text of the pdf. Many punctuations are involved as a part of a word which reduces the correctness of the algorithm slightly. With improvements in Parsing Algorithm, this application would work flawlessly.

Q6. I have tested my code on various pdf files and have tested its correctness manually on small pdf files (2-3 pages). Seeing the results to be highly accurate, the validity of the algorithm was confirmed.

Q7. Reducing the complexity of the Parsing Algorithm and using Built-In Functions for other functionalities could help us achieve a faster algorithm.

Q8. If this application is deployed on a Cloud Service Platform with faster and better computations strength and top-notch virtualization and traffic control mechanisms, the application could be used widely for solving the problem statement.

Q9. The .ipynb code file and the .xlsx output file for the project is attached along with this pdf file for your kind perusal.

Generic Questions.

Q1. Describe what you enjoy about programming? Give examples.

Coding helps me improve my logical and analytical skills. During my school and college, I used to be an ardent coder. Even though, my role at work doesn't require me to code much, I still have a knack for coding and participate in competitive coding contests once in a while. As I said, coding helps me to improve myself, keeps me in touch with competitive coding, polish my programming skills and in a way, helps me to revive my good old academic days! For example, today I was getting bored sitting back at home. I had a day off at work, so I thought of utilizing the free time and was checking some contests on Code Chef.

Q2) Describe the process you follow when writing code from requirements to delivery.

If I could describe this high level I would say:

1. Understand the requirements: make sure that you know what you need to deliver and for what it would be used.
2. Identify which part of code you need to modify: is this going to be something completely new or a modification in an existing code?
3. Have a clear idea of what are your inputs and outputs
4. Comment what you do: writing comments is always important together
5. Follow the correct code style: different languages use different code style, but it is always important to have written a suitable algorithm.
6. Test, test and more tests: have tests that make sure both your code works and that it achieves what you want
7. Code review: have your code reviewed by a peer using version control.

Q3) Describe why you believe you are the best candidate for the role at us? Also list the skills and attributes that you believe make you the best candidate

I believe I am the best candidate for this position because I have direct experience in many areas mentioned in the job description, including customer service and project leadership. Also, I'm passionate about the software industry. It's been an industry that I've wanted to get into since I began my career, so I'm also highly-motivated and excited to do this work for your firm. Am I right in thinking that your priorities for this role are to find someone who can help your customer service team and also manage some projects for your customers and clients? That's the impression I gathered from the job description.