

Re: interview question on primes

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"Digital Puer" <digital_puer@xxxxxxxxxxx> wrote in message
news:3bdc49e5-d202-491a-bde2-c7c31bee801f@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Got this on a software engineering interview question:
given two integers A and B, find all primes between them.

I basically wrote an initial function, `bool isPrime(int i)`, which loops over all numbers between 2 and `sqrt(i)` to see if `i%num == 0`, in which case the number is not a prime. With this function, I then loop between A and B, calling `isPrime()` on each value.

Any better ideas?

The "correct" answer is heavily dependent on the range of values of A and B, and if this is all the question states, its a pretty poor question.

If $A=1,000,000$ and $B=1,000,100$ your approach is viable but probably inefficient.

If $A=7$ and $B=1,000,000$ a sieve would be far more efficient.

If A = some 50 digit number and $B=A+100$, you would probably use a pseudo-prime checking function with brute force used only for checking possible pseudoprimes.

This question in its current form does not tell the examiner anything about your ability to design algorithms, IMHO.