

Scenario: The average response times for a system have been steadily increasing. The flow of the system is thus:

1. The user clicks on an ad
 2. The user is redirected to a web handler with the id of the ad in the query string
 3. The web handler checks to make sure the ad id is in the query string then looks up the destination url from the database
 4. The click is recorded in the database with the ad id, the user's ip, useragent and timestamp
 5. The user is redirected to the destination page
- Why do you think the system's response time is slowing down? (Identify the bottlenecks of the system)
 - Which of the bottlenecks would you address first? Why?
 - What would you do to address these bottlenecks?

Demonstration:

This is a chance to show off some of your development and UX skills.

- Please build an app (either a mobile optimized C# MVC web application or native iOS app) that allows a user to search iTunes. After searching, display the results and allow a user to click to the corresponding iTunes page. You can search iTunes by using the iTunes Search API here: <https://affiliate.itunes.apple.com/resources/documentation/itunes-store-web-service-search-api/>
- Please include a server side component that tracks how many clicks per result are made within the app and a create a view that displays the count of clicks
- When the user clicks on a search result, the app should redirect to the album/video/app in the itunes store
- If creating an app, the client does not need to be in the app store, but we should be able to install the client and test on one of our test devices, e.g. by installing the apk directly, through a program like test flight, etc.