

Real-Time Bidding (RTB)

This PHP script handles a bid request using a Real-Time Bidding (RTB) campaign manager. It loads a bid request from a JSON file, creates an instance of the RTB campaign manager class, and then processes the bid request to find an eligible campaign. If a campaign is found, it returns the response in JSON format; otherwise, it outputs a message that no eligible campaign was found.

Index.php

1. The global variable `$campaign_arr` is declared to store campaign information.
2. The 'campaign_array.php' file is required, which contains the campaign information.
3. The 'RTBCampaignManager.php' file is required, which contains the class for the RTB campaign manager.
4. The bid request JSON data is loaded from the 'bid_request.json' file using the `file_get_contents` function. The `__DIR__` magic constant is used to get the directory of the current file.
5. If the bid request JSON data or the campaign array cannot be loaded (i.e. if `file_get_contents` returns false), an error message is echoed in JSON format, and the script is terminated using `die()`.
6. An instance of the `RtbCampaignManager` class is created with the bid request JSON data and the campaign array as parameters.
7. The `handleBidRequest` method of the RTB campaign manager class is called to process the bid request and find an eligible campaign.
8. If a response is returned from the `handleBidRequest` method (i.e. if `$response` is not empty), the response is echoed in JSON format.
9. If no eligible campaign is found (i.e. if the `$response` is empty), the message "No eligible campaign found" is echoed.

RTBCampaignManager

Class `RTBCampaignManager` has methods to handle a bid request by parsing, validating, selecting the most suitable campaign, and generating a JSON response.

1. The constructor initializes the bid request and campaigns.
2. The `handleBidRequest` method processes the bid request by parsing, validating device, geo, ad format, and bid floor parameters, selecting a campaign based on criteria, and generating a JSON response.
3. The `parseBidRequest` method parses the bid request JSON data.
4. The `validateDevice`, `validateGeo`, `validateAdFormat`, and `validateBidFloor` methods validate the device, geo, ad format, and bid floor parameters respectively.
5. The `selectCampaign` method selects the most suitable campaign based on device compatibility, geographical targeting, ad format compatibility, and bid floor value.

6. The `generateResponse` method generates a JSON response with banner information from the selected campaign.

Overall, this code is a campaign manager for real-time bidding that processes bid requests and selects the best campaign to respond with a JSON banner ad.