

(Sun Tzu's) the Plan of ATTACK

Our first step is to change `slob_alloc()` so that it initially loops through each partially free page, finding each one that has sufficient room on the page. Every time one is found, we will call a function we write, `find_best_fit_block()`, which will be similar to `slob_page_alloc()`. This function will loop through each block on the passed `slob_page` looking for the best fit. If we ever find a block with a perfect fit, we immediately allocate to that block. Otherwise, for each block with sufficient space, we will calculate the fragmented space that would remain if we use that block for allocation, calling it *remainder*. If we have a previous *remainder* from an earlier page/block, we compare that to the new *remainder*, saving the minimum. If the new *remainder* is the minimum, we then save the inputs for `set_slob()` (the *current* block, the *size* to be allocated, and the pointer to the *next* block). Once we have looped through all blocks on all pages, we allocate memory by calling `set_slob` with the most recent *current*, *size*, and *next* that were saved.