I am sending the work I’ve done so far. For sure it’s not 100% complete, but I decided that I should already stop here and send what I’ve created. There are few pieces that I would implement/change/refactor if I had more time:

-Whole process of fetching data should be stored into file/database, rather then kept in memory, and should be done only once. After fetching data and storing it somewhere, both methods should run and generate 2 new files with reports. Once file with report is generated, an email with appropriate information should be sent and then user should see data immediately.

-I was considering different methods of fetching data if file was not appropriate. Data could be fetched into two lists of 100 objects each. After that they could be zipped/joined, sorted descending and only first 100 objects would be kept. Next step would involve fetching next 100 of data (that could be done while previous operation of merging lists was performing) and repeat of the process again. It would take more time but would be less memory consuming and could be done on fly.

-I would also implement other improvements like logging service that would log error messages into database. I would also consider creating base class for Controller and automating process of DI (create IService interface and resolve concrete classes automatically)