Vi - Data Scientist Home Assignment

Dear candidate, thank you for taking the time to complete this home assignment. The purpose of this assignment is to test both your analytics and ML skills, and to give you a glimpse on our day-to-day challenges. A data set based on one of our leading partners is attached:

Fields:

- MemberID - a uuid of a member
- EffectiveDate - the date of which the record is relevant
- Age
- Gender
- Height (cm)
- Weight (kg)
- DEXAScanResult (categorical result of latest Dexa scan/ other BF % approximation methods)
- AppUsage (hrs) - sum of all app session lengths in the last week
- GymVisitsLast2W - physical gym attendance last 2 weeks
- GymVisitsLast6W - physical gym attendance last 6 weeks
- GymVisitsLast12W - physical gym attendance last 12 weeks
- Outreach - whether or not the operator tried to call the member
- OutReachOutcome - what was the outcome of the attempt to call the member
- ChurnIn30Days - did the member churn in the next 30 days or not

Goal:

We are interested in reducing our partners' churn rate. For this matter, once a week, we want to select **N members** for the operator to call.

- Defining the size of **N** is up to you, but assume that there is a limited number of calls the operator can conduct per week
- You can assume that the features in the attached data set will be available for future predictions
- As all real world problems, the data will not be "clean" and can have some missing values/discrepancies that have to be dealt with
- Ideally, a complete solution includes a fully documented code

Do not hesitate to reach out if something is not clear - allon@vi.co
Best of luck!