XX medical analysis laboratory

A medical analysis laboratory decided to design a system to facilitate data gathering and hence improve the service quality to reach the maximum result accuracy and patient satisfaction accordingly.

You are asked to draw an ER diagram and mapping based on the following information.

* The laboratory has branches in different locations; each branch has a code, short name, detailed address contains the city and area where the branch located in, in addition to the street, building number and floor number as well.
* There is a group of medical tests, which the branch provides. Each test has a code beside the name and cost. Some tests have related conditions to apply to guarantee the result accuracy. The system has to save the duration that each test spends until the result is ready (E.g., each test has specific duration from taking the sample until showing the examination result).
* When the patient visits the branch to perform a test or more, there are some data needed about this patient to record by the system: patient ID, full name, age, mobile number, date of birth, gender and if he/she has chronic diseases.
* The system needs to save the information of which patient visited which branch to perform which test/s, in addition to storing the date and time of performing the test.
* Finally, the system has to keep track of the employees working in each branch. Each employee must serve in one branch only.
* Information required about the employees is; employee ID, full name, salary, team (each employee belongs to a specific team ex: chemists’ team, clean workers team, accountants’ team, doctors team, etc.).
* Each employee has specific duration (e.g. from 8:00 am to 5:00 pm). This duration, starting and ending time have to be recorded.
* In addition, the direct supervisor of each employee has to be considered (if any).
* Every branch must have only one manager who is responsible for it. In addition, no manager is allowed to manage more than one branch.