***Why incremental?***

We already mentioned that our system can be divided into several mini system. Among them the slot booking module gets the most priority of the customer (hospital) as it focuses on the problem domain most and also benefits them as this will draw more patient to them. Besides, if we can deliver the slot booking module first then we will be able to establish a core base for the whole system fast and gain the customers trust. After developing this module, we can go for patient medical history module and then organ donation module. So, clearly, we need to follow development process that allows to deliver project at increments. Then if we come to customers requirements, they are well understood to us and there is low chance of change of requirements from client side. Furthermore, the environment of our selected software is stable.

So, from these analyses we can say incremental model would be one of the best choices for small and inexperienced group like us. Choosing this model our risk of failing the overall project will reduce.

***Why extreme programming?***

Though our group is small and inexperienced, there is option of having high experienced personnel with us who can help us in all aspects. So, that way we can also use agile method to increase our productivity, output of incremental model, and we also can gather more experience. From the agile methods XP is the best suited option for us as it requires small group, allows incremental release, simple design, releasing the features in increment. It will also maximize our development and testing speed through pair programming. Choosing XP over other agile process is best for us because other process requires more manpower, tools, high experience, frequent professional meetings which are out of our reach.

Project roles and responsibilties:

Developing a software from scratch is a lengthy process and requires a lot of effort of multiple people. To finish a project successfully by avoiding project failure and produce a quality maintained software we need to follow a developing process that suits us most. Keeping that in mind we have already choose two process to develop our software. Now to carry out those process we need to divide all the task of the software’s development life cycle and assign them to the members of the team. Who will perform which set of tasks are determined by the role of that person in project management and development. Those roles and their responsibilities (in our chosen process) can be:

* Customer: Customer is the source of funding. Pleasing him is all that matters. He writes the requirements and functional tests. He also can prioritizes the requirements. He is the who decides if a functional requirement is satisfactory or out of the goal.
* Programmer: They are responsible for writing the source code of the project.
* Tester: Testers test the software for errors, bugs. They also help the customer to write functional test.
* Tracker: Tracker traces the estimates made by the team and gives feedback on how accurate they are in order to improve future estimations. He also traces the progress of each iteration and evaluates whether the goal is reachable within the given resource and time constraints or if any changes are needed in the process.
* Coach: He is a person who possess a sound understanding of extreme programming so that he can guide other members following XP.
* Consultant: Consultant is not directly involved with the development or management. Rather, he is an external member who can provide specific technical knowledge if any directly involved member need any veterans suggestion.
* Manager: Manager is the big boss. He makes the big decisions of the project.