Project Design Phase-II
Solution Requirements
(Functional & Non-functional)

Date	07 October 2022
Team ID	PNT2022TMID47568
Project Name	Project - Analytics for Hospitals' Health-care data
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	**Appointments**	1) Recurrent appointments. 2) Alter calendar time divisions within a day. (ex. display 15 min. time slots) 3) Sync with other scheduling software (ex. Outlook) on computer /mobile device. 4) Schedule provider/practice unavailable time (ex. office closed, vacations) 5) Employee ID of employee entering, changing, deleting appt. 6) Support group appointments. 7) Automatically create a billing charge for completed appointments. 8) Appointment Status: a. Pending b. Confirmed c. Cancelled; No Reschedule d. Cancelled; Reschedule e. No Show f. Completed

FR-2	**Clinical Charting**	1) Support OTC"natural" medications. 2) Ability to enter medication history prescribed by other providers. 3) Access medication history from external sources (ex. Surescripts). 4) Ability to select medication from same list of all medications available for ordering; Support partial medication name search and type in free text if medication name not found. 5) Visually show concurrent medication usage.
FR-3	**Partient Access**	1)Compare list of medications patient is currently taking with list of active medications in the patient's chart. 2) Accessible as Standalone function, as well as easily accessible from Progress Note and Evaluation activities.
FR-4	**General Documentation**	1) Capability to electronically prescribe. 2) Option of how to transmit new prescription (paper, electronic, phone call). 3) Ability to transmit multiple prescriptions for a patient at one time. 4) Electronically receive pharmacy renewal requests and place notification in Reminders List. 5) Automatically determine when new prescription is needed, because it expired and place notification in Reminders List. 6) Check drug-drug-allergy interactions, including OTC "natural" medications. 7) Display severity of interaction and other warnings in a user friendly manner. 8) Search comprehensive medication list of all possible medications that can be ordered whether or not on formulary; Allow partial name searches;

		Display all possible formulations (dosage forms, routes) for selection. 9) Include prescriber information on prescription according to location where patient is being seen. 10) Print prescriptions on formatted paper.
FR-5	**Reporting**	1) Customize reports needed by facility and to satisfy government reporting requirements. 2) Capture data and build statistics based on meaningful use criteria for Medicare/Medicaid attestation. 3) Customize reports needed by specific providers/practices or departments. 4) Customize reports needed by the facility and to satisfy government reporting requirements.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	**Usable** systems are straightforward to use by as many people as possible, whether this is end-users of a website, or administrators and content editors working with a back-end system. **Accessibility** is another crucial element when considering the usability of the system, particularly if your target audience has specific needs or a low level of digital literacy.Investing in User Experience

		(UX) activities is vital to deliver a usable and accessible system, and setting minimum levels of accessibility, for example following the Web Content Accessibility (WCAG) guidelines. Tactics such as creating an interactive style guide, prototyping solutions and conducting usability testing can further support these requirements.
NFR-2	**Security**	HMS oversees humongous volumes of data generation, information exchange, storage, and analysis at every level of hospital functioning. As it is based on Cloud and other advanced digital technologies, it offers strong, multi-layered security to all data exchanges, and thereby protects the system from misuse or loss of information. The HMS platforms usually comply with the most stringent data security and privacy policies set in a country. As HMS is hosted on Cloud-based servers which are located away from the premises, it remains protected from cyberattacks on hospital systems. Overall HMS promotes transparency, protects the confidentiality, prevents data theft, and offers a safe and secure ecosystem for hospitals operations to continue.
NFR-3	**Reliability**	Being software as a service, HMS is highly resilient to any technology disruptions, downtime, or crashes experienced by other technology systems. It has a certain capacity to work offline. It is highly secure from a data safety point of view. Furthermore, good HMS has a highly instinctive and intelligent user interface which makes them convenient to use.
NFR-4	**Performance**	By streamlining and integrating multiple processes, HMS infuses much speed, agility, and efficiency into the system. The platform has specially designed

		modules for various functions such as OPD management, IPD management, Cath Lab and diagnostics management, emergency care response, billing and payments, and operations. It has the ability to offer role-based control to users to allow them the use of one part of the function or multiple functions and help them monitor and track every activity necessary for healthcare delivery. Due to such intra-operability and flexible properties, HMS boosts the performance and capabilities of a healthcare facility in treating patients.
NFR-5	**Availability**	In our categories, **Availability** is a broad type of requirement that includes additional NFRs/QARs such as **reliability** and **resilience**.
NFR-6	**Scalability**	**Scalability** means that the system must be able to accommodate larger volumes (whether of users, throughput, data) over time, and also includes NFRs such as **elasticity**, which is the ability to scale up and down quickly, as needed. Today, scalability can be achieved more easily than in the past thanks to modern cloud-based solutions, which have the infrastructure needed to auto-scale according to requirements.