The patient record:

The inventory management module will digitize the inventory of medical equipment, vendor ordering supplies, invoicing, and payments.

Breakdown of 3-phase release.

\*\*Include justification regarding the change from A1 to A2 i.e. we are expanding phase 1 to develop and release more modules. Upon reevaluation, we prioritized the components needed for the core system to be successfully adopted by its core users.

**- Phase 1 Core System used by the Doctors, Nurses, and Office Admin**

* Appointment module
  + The appointment module will include appointment scheduling, appointment history, and virtual appointments.
* the employee records module
  + The employee records module will digitize the employee's scheduling and payroll.
* Patient records module
  + patient medical records diagnosis (initial).
* inventory management module (internal inventory).
  + The inventory management module will digitize the inventory of medical equipment,
* *Assumption*
  + *We are prioritizing core doctor office functions.*
  + *We will continue to use paper payment and accounting methods until Phase 3.*

**- Phase 2 Patient Portal Internal**

* Patient records module (continued)
  + Prescriptions, test results, and referrals.
  + For Docs, Nurses, Admins, Patients
* Patient Appointment module (self service)
* Patient Self Service Check-in

**-Phase 3 Referrals, Prescription, Ordering supplies**

* report generation module
  + The report generation module will generate reports from the existing information to help in performance management.
* inventory management module (external ordering)
  + The inventory management module will vendor ordering supplies, invoicing, and payments.
* payment and accounting module
  + The payment and accounting module will consist of invoicing, payment history, and insurance claims.
* Outgoing/external sending of prescriptions, test results, and referrals to other party (e.g. Pharmacy, Lab, etc.)

ASSIGNMENT GOAL: DEFINE THE TECHNICAL SCOPE REQUIRED FOR THE IS PROJECT

1. [10%] PRODUCE A HIGH-LEVEL REQUIREMENTS ANALYSIS OF THE IT SYSTEM.

Analyze the system objectives, to define:

1.1 The areas of business operations (business processes, or sub-processes) that will be supported by a system to achieve each objective, and - Michelle

1.2 The main functional IT system components (the logical system components) that need to be developed to support these business operations. - Shaima

Section Summary - Michelle

2. [10%] ANALYZE COMPONENT DEPENDENCIES TO DEFINE PHYSICAL SOFTWARE DELIVERABLES

Analyze development priorities, dependencies, and risks for the high-level components – summarize these using a table format.

2.1 Define “components” as you did for the logical component definition in section 1.2, but break down the more complex or highest risk software components into functional increments, split across phases.- Michelle

2.2 Split complex and high-risk components into subsystems to be developed across a 3-phase, incremental roll-out, to reduce development risk by developing the component in stages. - Steve

2.3 Define the high-level work-breakdown structure (WBS) for the project, based on part (a) to plan the roll-out (order and timing) of components or their subsystems for the project. - Shaima

Section Summary - Shaima

3. [10%] PRODUCE AN ARCHITECTURAL MODEL OF THE SOFTWARE SUB-COMPONENTS TO BE DELIVERED.

Define the software architecture (the physical software sub-components) required to implement the logical software components, using a client-server system architecture.

• This will normally result in a set of 3+ sub-components for each major functional component: (i) a client software module, (ii) a server software module, (iii) a database, and (+) enhancements to the User Interface to add menus and data presentation screens for this component. Some related components may share a database, or a server component –but most will require a specific database to support the data produced by the server application. - Michelle

• Think this through logically and produce an architectural diagram, that identifies all the physical components required. Explain how you arrived at this set of physical components (i.e. how they interact to support the required client-server functional applications).

Section Summary - Ben

4. [10%] PRODUCE A MID-LEVEL WBS BREAKDOWN.

Section Summary - Ben

4.1 Define each component to be delivered (from the architectural diagram) and provide a short definition of the relationship between components (dependencies).

4.2 Produce a mid-level WBS breakdown, that schedules development of the physical system (sub-components around the component plan produced for the high-level WBS. Identify any additional priorities or dependencies required by this breakdown. For example:

Phase 1 - Shaima

Phase 2 - Ben

Phase 3 - Steve

• Our phase 1 components will require a basic User Interface, which must be in place before you can perform unit testing of that component.

• Each component UI will be later integrated into a system UI that presents different subsets of menu navigation functionality, depending on the component being tested. The component UIs

must be in place before you can integrate them into the system UI. The system UI must be in place before you can perform integration testing for the phase 1 components.

5. [10%] PRODUCE A SYSTEM DEVELOPMENT (TASK-LEVEL) WBS.

Section Summary - Steve

Decompose the mid-level WBS, employing various development approaches (e.g. the prototyping mentioned above) as required by the type of deliverable.

• Do not copy my sample WBS verbatim – think about the type of development approach that should be used for various components or activities.

• Plan around component and sub-component interdependencies, to ensure that tasks are performed in a sensible order.

• Add tasks needed to ensure a working system (e.g. integration testing), to make changes to software produced in the previous phase, following client evaluation.

• Explain what you added to, or changed from the mid-level WBS, and why these changes were made.

Phase 1 - Shaima

Phase 2 - Ben

Phase 3 - Steve