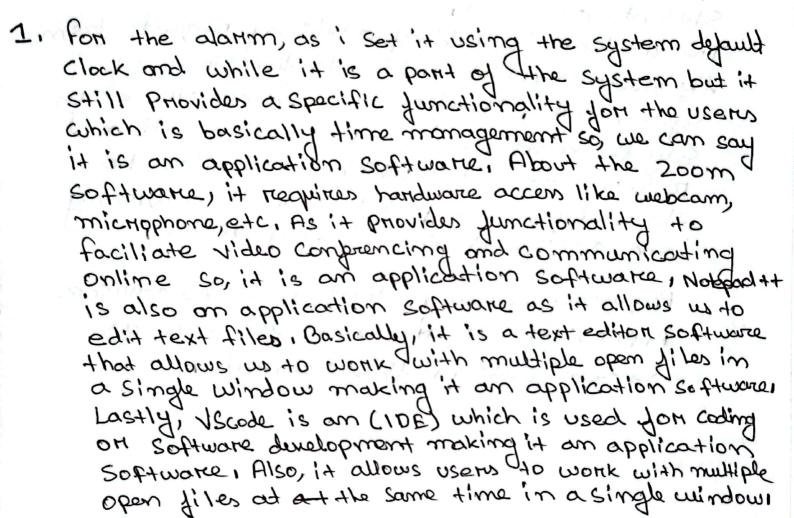
Take-Home Quiz 1

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2. This Scanario is similar to dual mode operation where advisors acts as kernel and students are users.

The advisor is taking advising requests from the students which represents functions of the students which represents functions or we can system call. Therefore, the advisors or we can say the kernel executes the system call and returns the output which is similar to the advisors accepting students advising the advisors advising and adding the courses they desire.

Requesting Course, Adding courses by advisors, Approving divisoring there all acts as

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3. This Scenario is Similar to the Home-sharing mechanism of an OS. In time-sharing mechanism, multiple processes gets access to the CPU/processer you a fixed amount of time which is also known as Hound-Hobin scheduling. In the Scenario each group is allocated a 3hours time Cycle to use the tesis lab PC before the rest group comes. Similarly, in OS time-sharing mechanism each process is given a fixed time size to execute the process on the CPU.

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According to the Scenario, It a group finishes their work within 3 hours, then they must leave and the next group is allocated. Similarly, in 05 time-shoring mechanism, it a process of is finished executing before on within time slice them the CPU switches to the next process immediately in the queue. If a group cannot finish their work within 3 hours then, they have to save their progress and

the allocation to will be given to the next group. Similarly, in 0s time-sharing mechanism, it a process has not completed execution within the time slice, the current state of the process is sound and is moved back to the ready queue and the next process in the queue gets across to the cpu for execution.

Advantages of this Structure is, it ensures that all groups gots join access to the PC and the PC doesn't Stay idle. It Reduces the challenges for the lab authorities in monaging and scheduling access to the PC for everyone and provides a Simple and Clear method for & PC allocation.

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41 Monolithic Monolithic Anchitecture is applicable your this scenario.

According to the Scenario, the development and operations teams are merged into one simple team and all members are involved in all activities related to software implementation. Similarly, in a monolithic architecture, all the functions of the DS is integrated all together and therefore, all components can interact with one another directly without any restriction on separation of tasks.

According to the Scenario bother the operation and devotopment tasks are handled by the Combined team which improves collaboration, Coordination and stevino shared responsibility. Similarly, in monolithic architecture as all functions are part of the same codebase and can be accessed and handled directly, it provides on efficient approach to system operations, About the functions of monolithic anchitecture, Communication between all components of the Os can happen without the need of a complex Communication system. Since everything is integrated into one large program so implementation is easier, abiding one Sort of communication between processes. Any part of the OS con access horduse directly and handle basic tasks when needed, Vo a report

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5. The Provided Scenario is similar to scheduling Queue in OS.

As first 20 processes are selected for consultation, this part is similar to job open where processes waits in the job open before they are ready anto be executed and sent to ready queen.

The first 5 patients of the previously selected 20 patients are needed to follow another queue which is similar to processes before a certain number of processes are sent to ready queue of and are ready to be executed bey CPU.

The transition from 20 pathients queue to S Pothlends queue is called Long term Scheduler in 0s language and 5 people queue to getting doctors consultation in short term of scheduler in 0s language.