DA 1 __/__/____

21BDS0340
Akshinav Dinesh Srivatsa

Question 1

a. The scope of the application includes:
To accept booking requests from customers
To schedule an appropriate parking spot in a certain time slot
To make smart parking areas that the system can know is occupied and that can restrict access.
To make the smart parking area only allow the booked individual.

b. I would choose the prototyping model due to this project having physical implications.

c. Three reasons for choosing the prototyping model is:
We can create a test environment
We can create a proof of concept easily, allowing for independent teams to work on aspects simultaneously
We can show and test the POCs directly with willing customers

d. I do not find the waterfall model appropriate due to the fixed requirements nature it needs.
I do not find the RAD model appropriate due to this project having physical affects, which may affect customer satisfaction if not done properly
I do not find the incremental model appropropriate due to the independent nature of the tasks, which doesn't allow for good prototyping in this model.

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Question 2

a. Four stakeholders are:
students, organisers, faculty, schedulers

b. Two requirements that satisfy all stakeholders are:
~~students can book~~
students and faculty can book and receive QR code itineraries to check into events
organisers and schedulers can check for validity and authorization by scanning the QR code.

c. Two emergent requirements are:
The system must always be up during GraVITas, otherwise all entry and checking will not work
The system must have an easy to navigate user interface and scanning a QR code for authorisation should be extremely fast (<1 second)

Question 3

Agile is a unique methodology in that it promotes the following:
It promotes iterative and incremental development
It promotes flexibility in requirements
It promotes customer collaboration and active feedback input
It promotes team member collaboration

Traditional techniques promote a more rigid system than agile with little collaboration and feedback

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The following is an example of steps between traditional vs. agile

Traditional

- Requirements
- Design
- Development
- Testing and Debugging

Agile

- Iteration 1
  - Requirements, Design, Development, Testing
- Iteration 2
  - Feedback inclusion
- Iteration 3
  - Additional features

Due to agiles cooperation and feedback increments, it is always cheaper and takes less time than traditional approaches.