Practice 1

Identify, list, and classify all the requirements in the scenario.

- App will need to integrate with GPS systems Provide accurate location tracking (functional)
- Dynamically offer alternate routes (functional)
- Users report traffic incidents and hazards (functional)
- Support voice-assisted navigation for drivers (functional)
- Provide specific routes for cyclists and pedestrians (functional)
- Provide real-time public transportation schedules for buses, trains, and subways (functional)
- Adaptable to different cities and regions (non-functional, portability)
- App should be intuitive and user-friendly (non-functional, usability)
- App should include accessibility features for individuals with disabilities (non-functional, accessibility)
- Comply with ethical standards, ensuring that routes are not biased based on demographic data (non-functional, ethics)
- Should be able to handle high user traffic (non-functional, scalability)
- Offer offline capabilities (non-functional, availability)
- Safeguard user data (non-functional, security)
- Ensure that personal info is encrypted and stored in compliance with data protection regulations (non-functional, compliance)
- Support two-factor authentication (functional)
- App should be developed using cross-platform technologies, allowing for smooth usage on Android and iOS devices (non-functional, portability)
- Should be designed with microservices (non-functional, maintainability)
- App must be cloud-hosted (non-functional, performance)
- Provide developer API's (non-functional, interoperability)

Practice 2

Create 15 User Stories.
- As a question-asker, I want relevant and upvoted answers pushed to the top of the page so I can see the best responses first.
- As a moderator, I want to be able to lock a post if the discussion becomes un-civil to prevent harmful language and discourse from being shared.
- As a moderator, I want to be able to delete irrelevant questions or answers to avoid flooding the page with unnecessary posts and information.
- As a moderator, I want to be able to review a post before it is posted to verify it is complying with site rules.
- As a reader, I want to be able to upvote or downvote answers and questions to ensure high-quality posts on Quora.
- As a reader, I want to be able to join communities of interest so my feed has posts I care about reading.
- As an answerer, I want to be able to enter my areas of expertise so I can answer questions I have knowledge of.
- As a moderator, I want to be able to create spaces to allow similar posts to be grouped together.
- As a question-asker, I want to be notified by email or SMS when my question has been answered so that I can quickly view the answer.
- As a reader, I want pages to load quickly to allow for quick viewing of the posts I care about.
- As a moderator, I want communities to support high numbers of users to avoid making multiple communities and having all related posts be in one place.
- As a reader, I want Quora to be supported on my mobile device to allow for reading on-the-go.
- As a question-asker, I want AI-generated answers to be deleted or moved to the bottom of my post so that the human answers are the ones I see first.
- As a reader, I want to be able to filter for distressing or NSFW content so that I don't open any inappropriate posts at work.
- As an answerer, I want to gain reputation by answering more questions and receiving more upvotes so that I have higher credibility and relevance on Quora.

Practice 3

Refine and Modify Requirements.
- Must have: Improved voice navigation, improved safety features for pedestrians
- Should have: Information on bike lane conditions and road conditions
- Could have: Locations of nearby bike repair shops
- Won't have: Information on pollution levels across the city

Modified requirement: Improve voice navigation for drivers to give clearer instructions well in advance. This improves the user experience by making it less likely that drivers miss their turns or go to the wrong location. A non-functional aspect of this is usability, ensuring that clear and timely instructions are given, which could potentially be ensured with more robust testing prior to update or feature launch.

New requirement: Analyze crime data to identify unsafe areas for pedestrians to walk, improving user safety.

New requirement: Provide info on well-lit sidewalks and crosswalks to increase pedestrian safety, which improves user experience for pedestrians, making them feel safer when walking, especially at night.

New requirement: Provide information on bike lane and road conditions to give users the ability to optimize their routes for the best conditions. A non-functional aspect of this is to ensure that users in high-traffic areas are still experiencing strong performance, even if they are stuck in traffic with multiple other users that are also using the app.

New requirement: Provide information on nearby bike repair shops so bikers can stop and make quick fixes to their bikes as they go.