

SOFTWARE ENGINEERING LAB TASKS

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TEAM NO - 11

Problem Statement – 1:

Your new software project is a product delivery platform. As a part of project initiation and approval you are required to perform and note down a thorough competitor analysis. (Some companies with a product delivery platform are Unbx, Algolia etc.)

After your analysis, you are expected to do the following exercise as a part of risk management.

On the digital document or paper, add columns with the following headers:

1. What could cause a miss in your deadline?

ANSWER) I. Postponing a single release may cause delays on other releases.

II. We need to predict how long the product delivery takes, poor time management will cause delay in product delivery.

III. Poor resource management

IV. Not ensuring the availability of programmers in the right quantity and quality.

V. Not following the priorities of tasks

2. What will keep your project on time?

- Implement a well-defined product Development Strategy

Create a roadmap which contains the details of the steps taken from product design

To implementation along with a clear timeframe.

- Determine Product specification Requirements

These includes pricing , design features and functionalities ,etc.
Documentation must

Be clear in order for the project to be completed on time.

- Use agile methodologies

Agile based incremental and iterative development enables organizations to respond to market changes faster and deliver higher quality software.

3.What does this project need that you don't have?

Resource planning :we need to know who is going to do each job and the requirements by each. Having a work break down structure, breaking down a project into smaller tasks given each task a due date .

Project progress review: review the project process frequently, this ensures that each task will be completed before their individual deadlines .Make the appropriate adjustments to ensure that the tasks are completed on time.

4. What do you already have that this project needs?

- Documentation

Documentation is an important part of agile project initiation . This is the starting point and not the final documentation. This is an integral part of project initiation that we already have.

- Stakeholders

Documentation is proceeded from on-going discussions between stakeholders, the product owners and development team that is developed in sprint 0.

5. What are you worried about?

The things that we are worried about or risks during project initiation are-

- Performance risks

Finding out issues in performance during the later stages of project development can cause major setbacks and massive financial loss.

- Organization risks

Poor team work and management can lead to internal conflicts which in turn lead to wastage of valuable resources and time.

- Supply chain risks

If supply standards and quality aren't met by the vendors and customers this could lead to major loss of both money and time.

6. What are you excited about?

We are excited about:

- Making the best use of resources: as the resources are limited we need to make best of it.
- Defining project goals and objectives, tracking the project goals.
- Identifying the trigger and executing as well as monitoring risks.
 - If project planning phase is precise then we are excited about the project success.

7. What could go wrong with this project?

- The final project might not meet the standards or the requirements of the customer .
- An error that could be solved during design phase itself , left ignored , causing a huge problem down the line which would cost more labour and money than if it were treated early on.

- Extensions of deadlines due to unavailability or delay in resource arrival and management.
 - Client and team miscommunication .

8. What could go right with this project?

- All the deadlines and targets of each sprint are met on time.
- Product is delivered on time
 - The product delivered matches all the market requirements.

Brainstorm and write down answers for these questions first. Next, mention the points that you feel are going to be risks and successes. (Hint: To identify successes, ask yourself this question – “What’s the opposite of this risk?”)

RISKS:

1. Termination of the offer by the client.
2. Attackers targeting the project
3. Leaked code can lead to exploitation of vulnerabilities.

SUCCESES:

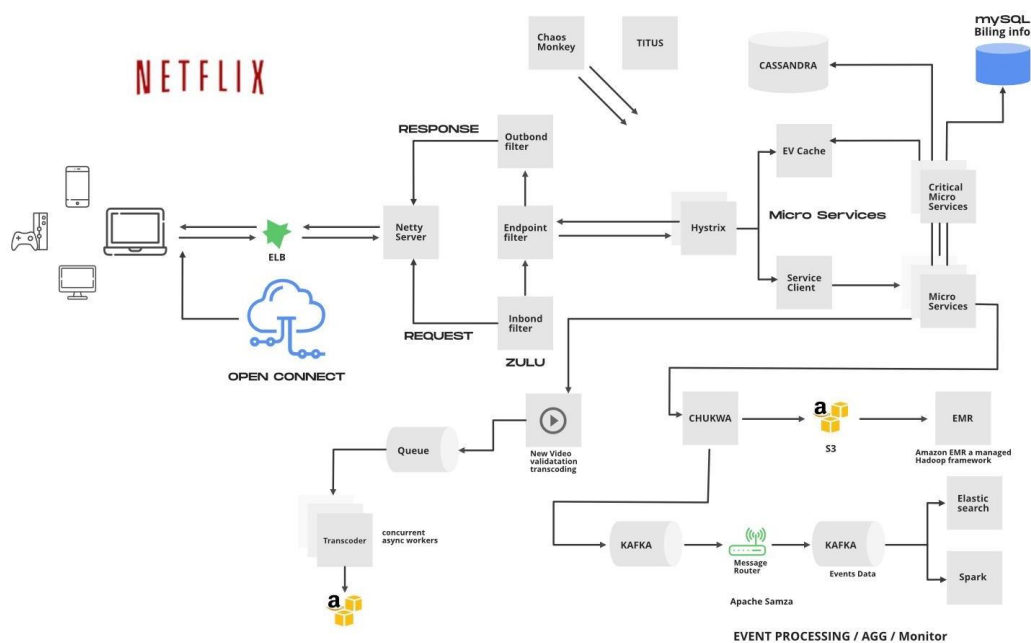
1. Product doing well in the market.
2. Security of the product
3. Maintenance of privacy and integrity

Problem Statement – 2:

You are required to curate the AWS architecture for an Indian Premier League management system, complete with a score predictor and attractive dashboard. Explain why that particular service has been used and draw a final flowchart with all the services you think are necessary.

Your architecture diagram/flowchart should be similar to the picture shown below.

Example: This is the final architecture diagram for Netflix



Problem Statement – 3:

Explore the MakeMyTrip website <https://www.makemytrip.com/>.

Write the minispecs and draw the top level DFD, first level decomposition and second level composition for the MakeMyTrip website.

MINISPECS:

Identification: Booking request

Description

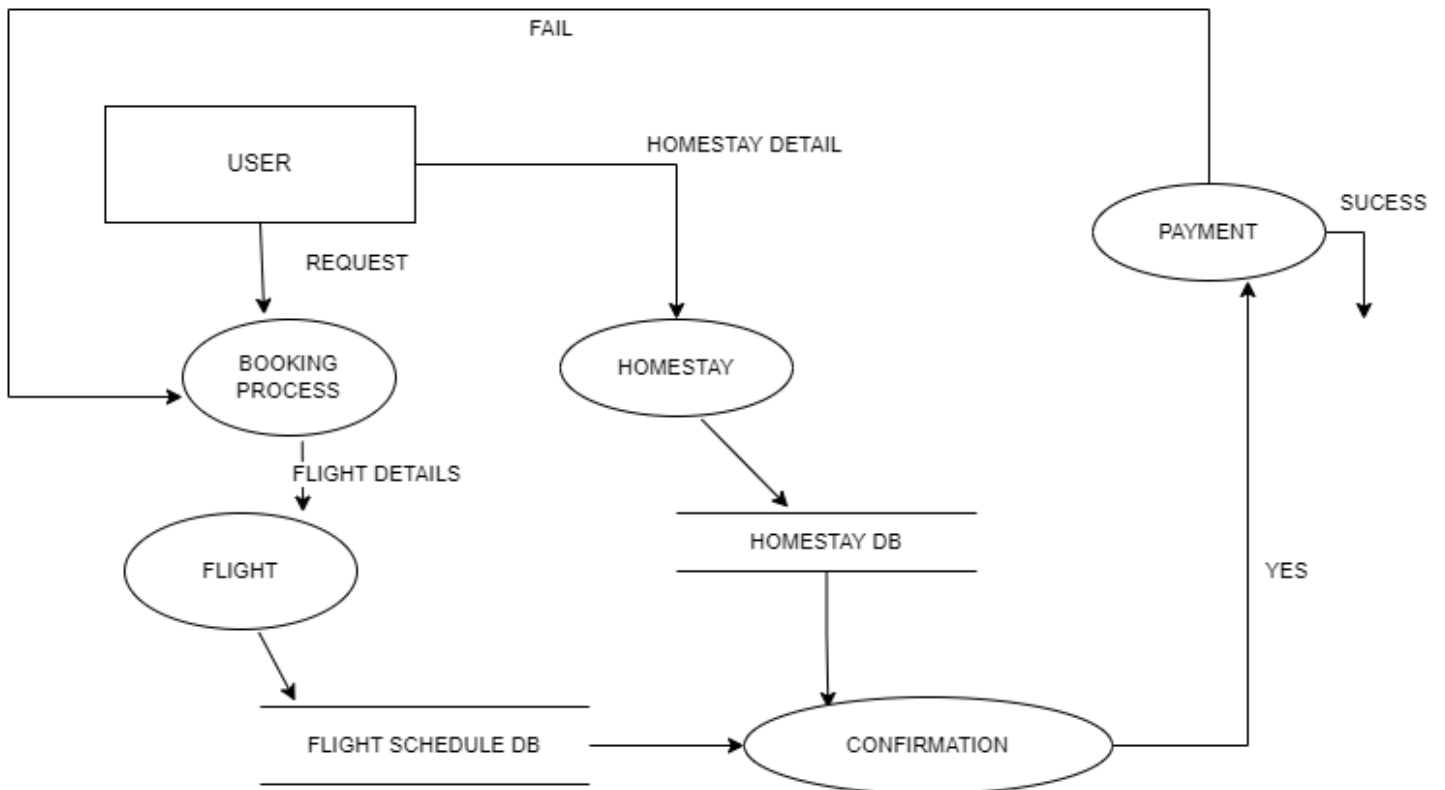
1. Enter the type of booking request
 - 1.1 If invalid request, issue warning and repeat step 1.
 - 1.2 If hotel/flight booking request, then proceed.
2. Enter details of booking
 - 2.1 If invalid, issue invalid booking id and repeat step 2.
 - 2.2 If details are correct, show results.
3. Selecting the flights/hotels
 - 3.1 If invalid or unavailable, redirect to the search result page.
 - 3.2 If available, proceed to next level.

TOP LEVEL DFD



FIRST LEVEL DECOMPOSITION

Problem Statement – 4:



SECOND LEVEL DECOMPOSITION

