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Subject oose

Question #3 (24 Marks)

1. **What is the difference between a Task and a Work Product? Explain in your own words and give an example of each.**

Ans :

Task:

Task mean a piece of work to be done task implies work imposed by a person in authority or an employer or by circumstance.

Task example:

To task is to drain someone to do resource s or to assign someone to do a particular job.

As example of taks is when a child took are his parents energy..

An ecample of task is when your assign joe the job of taking out the garbage

Work Product

A work product may begin as an analysis made during the development of a project, creating a type of proposal for the project that a company cannot deliver until the project has received approval. Companies use work products to provide information to current stakeholders and potential investors. Types of information available in a work product might include prototypes, presentations, recorded discussions, diagrams and status reports. The organization can also use the work product as a source of information while the project progresses.

the set of materials (as notes), mental impressions, conclusions, opinions, or legal theories developed by or for an attorney in anticipation of litigation or for trial

It's also a lowest element at a given point of time but at later stage it will get decomposed into work packages

Planning Packages are decomposed into work package or they get converted into work package when we get more visibility of the work, planning package will not have activities under them

Work packages are planned by way of identifying activities under them, they are the primary input to identify activities process

It's a lowest level element of work breakdown structure, further decomposition will not be done beyond this level

c. There are different types of testing. State which techniques are performed by the developer and which of them are performed by the client.

Ans :

➢ **Test planning :**
  Allocates resources and schedules the testing.this activity should occur early in the development phase so that sufficient time and skill is dedicated to testing.
  e.g developers an design test cases as soon as the models they validate become stable.

➢ **Unit testing** :tries to find faults in participating objects and subsystem with respect to the uses case from the use model.
➢
➢ **Usability testing**: tires to find faults in the user interface design of the system.Often system fail to accomplish their intended purpose simply b/c their users are confused by the user interface and unwillmgly introduce erroneous data.
➢
➢ **Intergration testing** : is the activity of finding faults by testing individual components in combination.
➢
➢ **Structural testing** : is the culmination of intergration testing involving all components of the system.integration tests and structural tests exploit knowledge from the SDD using an intergration strategy described in the test plan (tp).

➢ **System testing**: tests all the components together seen as a single system to identify faults with respect to the scenarios from the problem statement

and the requirements and design goals identified in the analysis and system design, respectively

- ➢ **Functional testing** tests the requirements from the RAD and the user manual.

- ➢ **Performance testing** checks the nonfunctional requirements and additional design goals from the SDD functional and performance testing are done by developers.

- ➢ **Acceptance testing and installation testing**: check the system against the project agreement and is done by the client if necessary with help by the developers

b. You are working on coding of a software in which a lot of calculations are involved. The calculations are quite easy to be done, but you do expect some inconsistency in the calculations because of some inner problem with the software. Would you rather go for Fault Avoidance technique or Fault Detection technique in the Testing Phase? Explain your answer

Ans :

Worst experiences

Budget and time may be limited
Changing of Technologies and development approaches
Best experiences
Competent in developing software. Get competitive advantage in developing software
Confidentiality in developing software to manage software in any platform

The system cannot meet user requirements due to high expectation of the user

High demand of software. Due to many software engineers intend to produce software for business purpose so some of the user requirements cannot include during development
 Poor procedure of following during requirement gathering

3 Common Issues with the Software Development Process

Software development process issues have been around since the inception of software. Improving software development productivity should be the main focus of all who work on development teams, especially leads and project managers.

However, before any issues are addressed, teams must understand which issues might arise during development. Here, we cover three of the most common problems software development teams face when planning, creating or expanding their software applications or services.

Inadequate Communication Amongst Teams

Communication is a problem in the workplace across many industries, especially in software development. Miscommunication in development teams can lead to poorly made products that don't meet stakeholder expectations or customer needs. Misunderstanding among teams can also lead to missed deadlines and feature requests and may incur additional expenses to bring the product up to par.

Poorly Scheduling the Software Development Process

Aggressive timelines are one thing; unrealistic timelines are another. Projects need adequate time to build. If given an insufficient amount of time to test, major software issues will likely occur. While clients might be looking for a completed project as soon as possible, project managers must take a realistic approach to the time required to complete a project request and request deadline extensions whenever necessary. If a client is unreasonable and unwilling to accept practical feedback, teams should consider whether to work with the client in the first place.

Lack of Software Testing

Overly aggressive timelines often result in sub-par software testing. Yet testing must be a part of the development process. Testing ensures that products work as intended and that bugs are addressed before the software goes live. No one wants to wait until a customer complains to find out that there was a problem with the software.
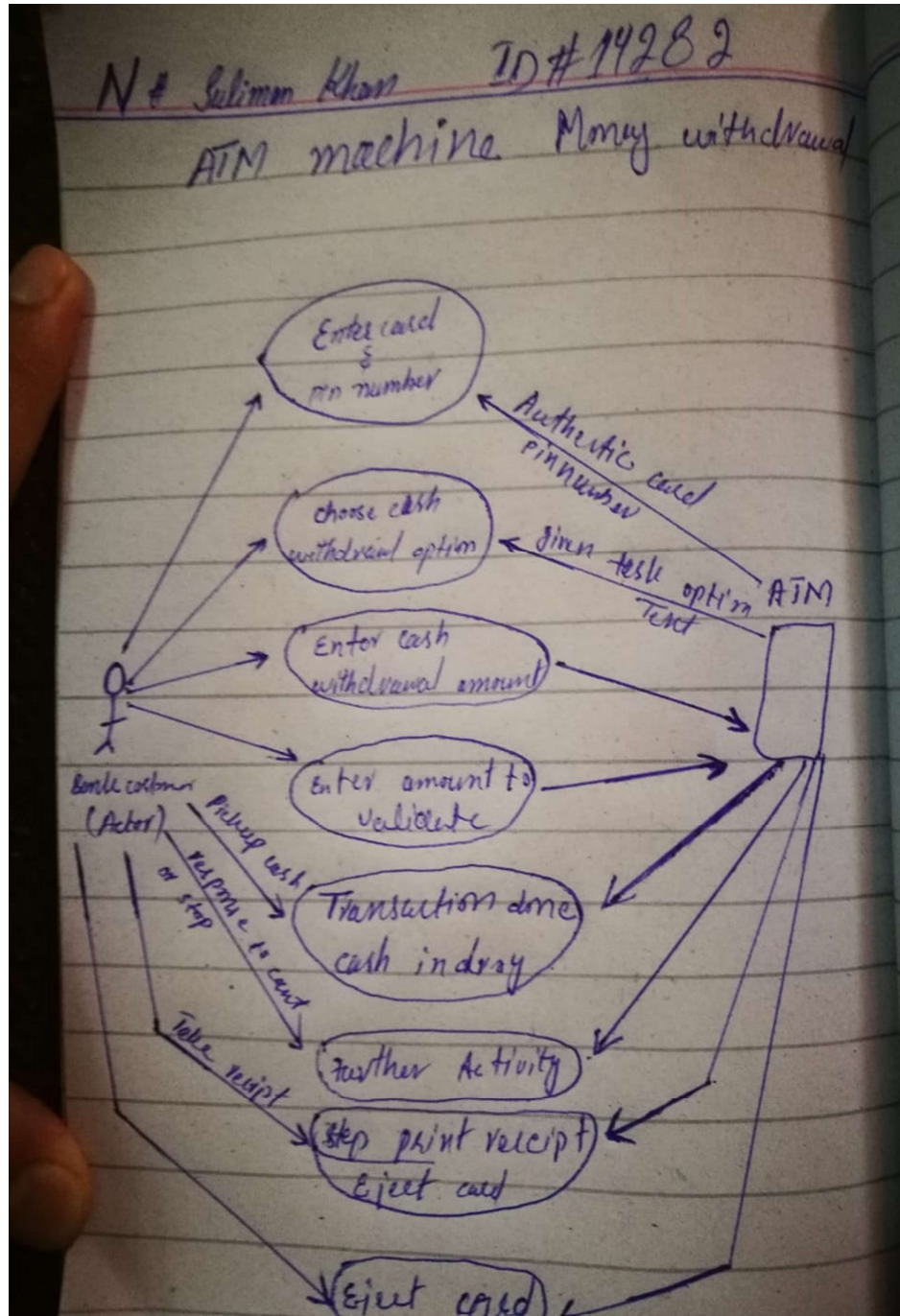
Software development is a complicated process. Proper communication, planning, and testing help ensure that teams don't fall victim to development problems.
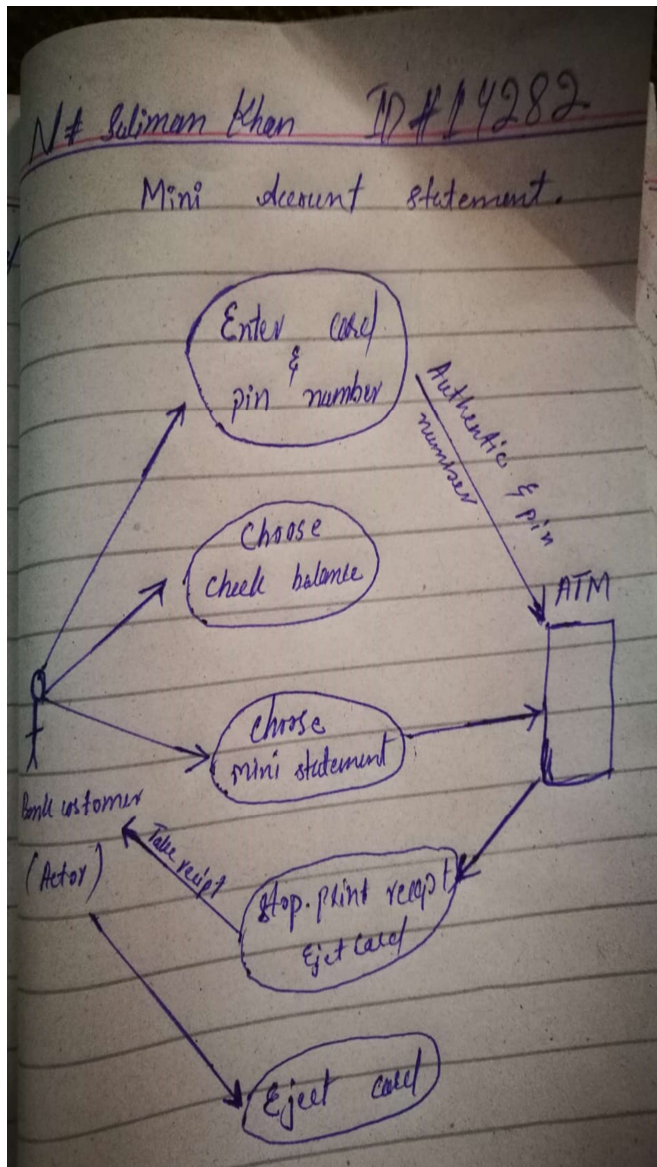
Question #1 (16 Marks)

An ATM machine can be used for Money Withdrawal and getting Mini Account statement. Make a State Machine Diagram for these two cases.

Ans :

ATM money withdrawal machine diagram

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ATM machine Money withdrawal

MINI Account statements machine diagram

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Mini Account Statement.

Enter card & pin number

Authentic & pin number

Choose Check balance

ATM

Choose mini statement

Bank customer (Actor)

Take receipt

Stop. print receipt Eject card

Eject card

Question #2 (10 Marks)

You have to make a personalized software for a consultancy firm. Some components of the software are those for which you already have code. Some parts of the software are such that you can find ready-to-be-used code from internet. If you want to embed both types of code into your product, and complete the software by coding

the remaining part, what can you expect during this whole process? Will it be easy or hard? What problems you might face and how will you overcome those problems?

Ans :

CUSTOM SOFTWARE DEVELOPMENT SAVES CONSULTING FIRMS FROM FALLING BEHIND

Digital innovation continues to rapidly transform the management consulting industry and when firms don't keep up with the latest tech trends they risk becoming irrelevant in comparison to their competitors. It's no mystery that the needs of clients change swiftly, but if consultants fail to meet demands, they not only fall behind in execution for their customers, they fall behind the competition. Geneca provides custom software development for consultants that sharpens their competitive edge and ensures long-term group

IT'S CALLED CUSTOM SOFTWARE FOR A REASON. CUSTOMIZED TO YOUR CONSULTANCY'S UNIQUE NEEDS.

Geneca doesn't template any of our management consulting software. We customize the software we develop to cater to every firm's unique needs. Whether they need to keep up with tasks for clients or optimize internal communication, Geneca supports your firm's custom software development from start to finish including adoption, evolution over time, and full assistance after launch. We help consulting firms decide if the new software product will be useful for clients and staff, what it will do for them, and how it will generate revenue.

IMAGINE THE CONSOLIDATION OF SERVICES GENECA'S CUSTOM SOFTWARE CAN ACCOMPLISH FOR YOUR MANAGEMENT CONSULTING FIRM

CRM SOFTWARE THAT SOLVES PROBLEMS YOUR CURRENT PSA DOESN'T
Customer Resource Management is essential to every firm's success. Geneca develops custom software for consulting firms that can track unique information and actions that your current PSA solution doesn't provide. Whether your firm needs software to record and organize client leads or segment their target audience, Geneca will work with you to develop and support the right CRM solution for your firm.

COLLABORATION TOOLS TO ELIMINATE MISCOMMUNICATION

There's nothing worse than stunting your firm's growth due to miscommunication. Geneca develops custom software for consulting firms to optimize efficiency for in-office and remote collaboration. Whether it's email platforms or messaging systems, Geneca develops and supports the right custom software solution for your firm's optimized communication.

ANALYTICS THAT HELP YOUR CONSULTING FIRM MAKE DIFFICULT DECISIONS

Geneca understands that as a management consultancy firm, you carry the heavy responsibility of making critical decisions for many of your clients. For every critical decision,

there's data required to back it up. If your consulting firm doesn't have sufficient analytics software in place to interpret this data, you're setting yourself and your clients up for failure. Geneca develops custom software for consulting firms that analyzes and interprets the data you need to make decisions that accelerate your business.