

Department of Computer Engineering

Academic Term: First Term 2023-24

Practical No:	6
Title:	Dataflow Analysis of the Project
Date of Performance:	22/8/23
Roll No:	9770
Team Members:	Glen pereira, Nash Dabre ,prince Carvalho ,Ayush Singh

Rubrics for Evaluation:

Sr. No	Performance Indicator	Excellent	Good	Below Average	Total Score
1	On time Completion & Submission (01)	01 (On Time)	NA	00 (Not on Time)	
2	Theory Understanding(02)	02(Correct)	NA	01 (Tried)	
3	Content Quality (03)	03(All used)	02 (Partial)	01 (rarely followed)	
4	Post Lab Questions (04)	04(done well)	3 (Partially Correct)	2(submitted)	

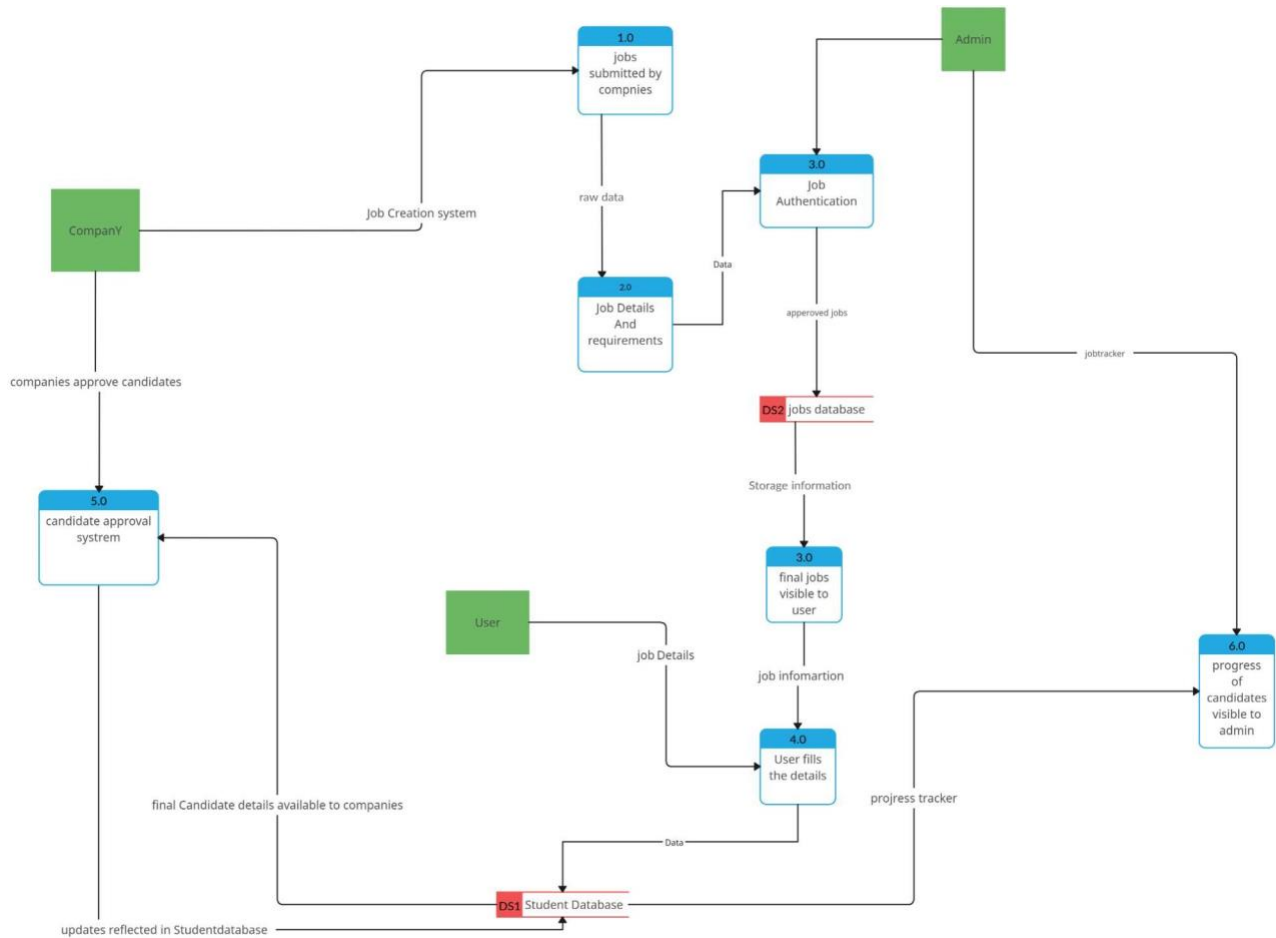
Signature of the Teacher:

Department of Computer Engineering

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Class: T.E /Computer Sem – V / Software Engineering

Signature of the Teacher:



Postlabs

a) Evaluate the benefits of using Data Flow Diagrams (DFD) to analyze and visualize the data movement in a complex software system.

Data Flow Diagrams (DFDs) are a graphical way of representing the flow of data in a system. They are used to analyze and visualize the data movement in a complex software system.

The benefits of using DFDs to analyze and visualize the data movement in a complex software system include:

- They are a clear and concise way of representing the data flow.
- They can be used to identify potential problems in the data flow, such as bottlenecks and security vulnerabilities.
- They can be used to communicate the data flow to stakeholders.

- They can be used to document the data flow for future reference.

b) Apply data flow analysis techniques to a given project and identify potential data bottlenecks and security vulnerabilities.

Data flow analysis techniques can be used to identify potential data bottlenecks and security vulnerabilities in a system. These techniques include:

- Identifying the data flows that are critical to the system.
- Identifying the data flows that are vulnerable to attack.
- Identifying the data flows that are causing bottlenecks.

Once the potential data bottlenecks and security vulnerabilities have been identified, they can be addressed to improve the system's efficiency and security.

c) Propose improvements to the data flow architecture to enhance the system's efficiency and reduce potential risks.

There are a number of ways to improve the data flow architecture to enhance the system's efficiency and reduce potential risks. These include:

- Redesign the data flow to eliminate bottlenecks.
- Implement security measures to protect the data flows from attack.
- Implement monitoring and auditing procedures to detect and prevent problems with the data flow.

By improving the data flow architecture, you can improve the system's efficiency and reduce the risk of data breaches and other problems.

Here are some specific examples of how DFDs can be used to improve the data flow architecture of a system:

- A DFD can be used to identify data flows that are unnecessary or redundant. These data flows can be eliminated to improve the efficiency of the system.
- A DFD can be used to identify data flows that are vulnerable to attack. These data flows can be protected with security measures, such as encryption and access control.
- A DFD can be used to identify data flows that are causing bottlenecks. These data flows can be redesigned to improve the efficiency of the system.

By using DFDs to analyze and improve the data flow architecture, you can improve the efficiency and security of your system.