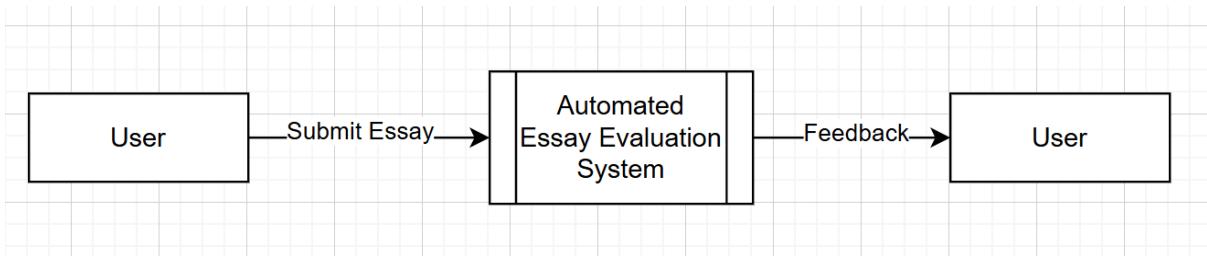
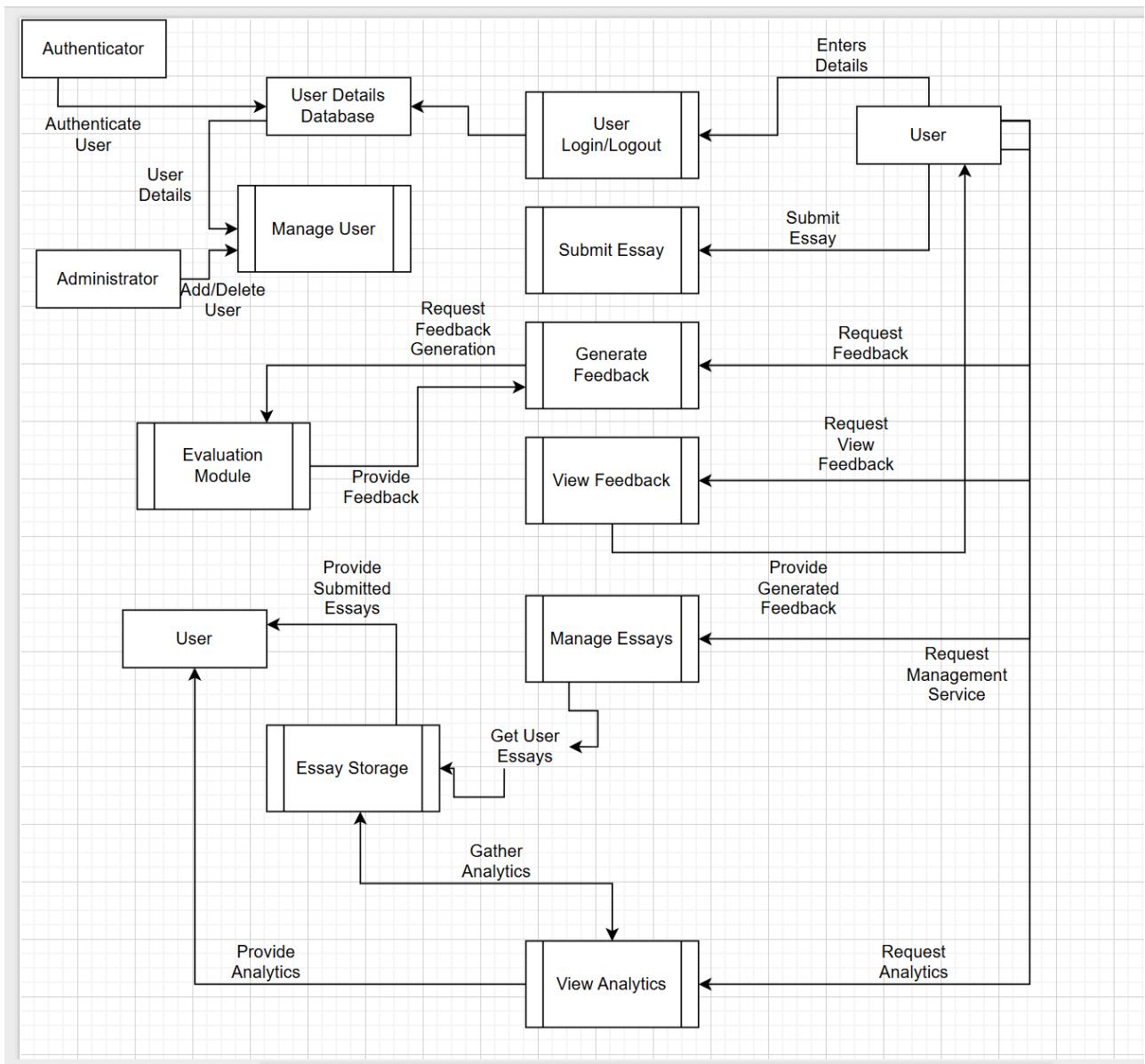


## **Part A:**

## Q1: Level 0 DFD



## Q2: Level 1 DFD



## Part B:

Q1: Attributes and methods with visibility(Public, Private, and Protected)

<p>UML (Class Diagram)  Key classes involved -</p> <p>RegisteredUser -  Name: String (Public)  email: String (Protected)  password: String (Protected)  - Function  Login(): Boolean (Public)  Logout(): Boolean (Public)  changePass(): void (Private)</p> <p>UnregisteredUser -  ID: String (Public)  SubmitEssay(): int (Private)  ViewFeedback(): String (Private)  Register(): void (Public)</p> <p>User -  Name: String (Public)  ID: int (Public)</p> <p>Student -  Name: String (Public)  ID: int (Public)  - Functions  SubmitEssay(): int (Private)  ViewFeedback(): String (Protected)</p> <p>Teacher -  Name: String (Public)  ID: int (Protected)  - Functions  GenerateFeedback(): String (Protected)  ManageEssay(): void (Protected)  ViewAnalytics(): void (Protected)</p>	<p>Organization -  Name: String (Public)  ID: int (Public)</p> <p>Authenticate -  - Functions  AuthenticateEmail(): Boolean (Protected)  AuthenticatePass(): Boolean (Protected)</p> <p>Administrator -  UserID: int (Public)  UserName: String (Public)  Email: (String) (Public)  Password: String (Private)  - Functions  Login(): Boolean (Protected)  Logout(): Boolean (Protected)  CreateUser(): Boolean (Private)  RemoveUser(): Boolean (Private)  ApproveOrganization(): Boolean (Private)  ConfigEvalModule(): void (Private)</p> <p>EvaluationModule -  Name: String (Public)  moduleID: int (Public)  FeedbackScore: float (Protected)  IsActive: Boolean (Public)  - Functions  AnalyzeGrammar(): void (Protected)  AnalyzeArgument(): void (Protected)  CalcScore(): float (Protected)  GenFeedback(): String (Protected)</p> <p>Essay -  EssayID: int (Public)  AuthorID: int (Public)  SubmissionDate: Date (Public)  Content: String (Protected)  - Functions  ValidateEssay(): Boolean (Protected)</p>
---	---

Q2:

