Assignment 03.01.02

Domain Design / Implementation

Assignment: Designing a Conference Management System Using DDD

Objective
Your task is to apply Domain-Driven Design (DDD) principles to design a simplified version of a Conference Management System (CMS). You will identify and specify different subdomains and DDD building blocks (entities, value objects, aggregates) for the given use case.

Overview
A Conference Management System is a comprehensive tool designed to facilitate the organization and management of academic conferences. It covers various functionalities, including paper submission and review, attendee registration, scheduling, and event logistics.

Requirements

1. Analyze the Business Domain: Start by understanding the CMS's business domain. Identify the system's primary goal and the key activities it needs to support.
2. Identify Subdomains: Divide the CMS into subdomains. Determine which are core, supporting, and generic subdomains based on their strategic importance to the conference management process.
3. Design Building Blocks (and create a small descriptor of methods and properties):
    a. Entities: Identify the key entities involved in the CMS;
    b. Value Objects: Determine which aspects of the system are best represented as value objects;
    c. Aggregates: Design aggregates around the core transaction boundaries, deciding which entities and value objects belong together;

Example of the Entity “Attendee”:

```
public class Attendee
{
   // Unique identifier for the Attendee entity
   public Guid Id { get; private set; }
   // Attendee's full name
   public string FullName { get; set; }
   // Attendee's email address
   public string Email { get; set; }
   // Attendee's registration type (e.g., Student, Professional, Speaker)
   public string RegistrationType { get; set; }
   // Constructor to enforce initialization with essential attributes
   public Attendee(Guid id, string fullName, string email, string registrationType){...}
   // Method to update attendee's registration type
   public void UpdateRegistrationType(string newRegistrationType){...}
   // Overriding Equals and GetHashCode to compare Attendee entities by Id
   public override bool Equals(object obj){...}
   public override int GetHashCode(){...}
}
```