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Whitebox testiranje

Testovi su radjeni na metodi SubtractHavenCoins u havenCoinsService:

```
private HavenCoinsService havenCoinsService;

    [TestInitialize]
    public void Setup()
    {
        var lines = new string[] { "1,28", "2,12" };
        var fileOperationsMock = new Mock<IFileOperations>();
        fileOperationsMock.Setup(fo => fo.ReadAllLines(It.IsAny<string>())).Returns(lines);
        havenCoinsService = new HavenCoinsService(fileOperationsMock.Object);
    }

    [TestMethod]
    public void SubtractHavenCoins_ValidSubtraction_ReturnsTrue()
    {
        // Arrange
        int userId = 1;
        int initialCoins = 28;
        int coinsToSubtract = 5;

        // Act
        bool result = havenCoinsService.SubtractHavenCoins(userId, coinsToSubtract);

        // Assert
        Assert.IsTrue(result, "SubtractHavenCoins should return true for valid subtraction");
```

```
        Assert.AreEqual(initialCoins - coinsToSubtract, havenCoinsService.csv.Find(e => e[0] == userId)[1],
            "The number of coins in the CSV should be updated correctly");
    }

    [TestMethod]
    public void SubtractHavenCoins_InvalidSubtraction_ThrowsArgumentException()
    {
        // Arrange
        int userId = 1;
        int coinsToSubtract = -5;

        // Act & Assert
        Assert.ThrowsException<ArgumentException>(() =>
havenCoinsService.SubtractHavenCoins(userId, coinsToSubtract),
            "SubtractHavenCoins should throw ArgumentException for invalid subtraction");
    }

    [TestMethod]
    public void SubtractHavenCoins_InsufficientCoins_ReturnsFalse()
    {
        // Arrange
        int userId = 2;
        int initialCoins = 12;
        int coinsToSubtract = 15;

        // Act
        bool result = havenCoinsService.SubtractHavenCoins(userId, coinsToSubtract);

        // Assert
```

```
        Assert.IsFalse(result, "SubtractHavenCoins should return false for insufficient coins");
        Assert.AreEqual(initialCoins, havenCoinsService.csv.Find(e => e[0] == userId)[1],
            "The number of coins in the CSV should not be updated");
    }
}
```