

Publishing inventory updated events

Script start

Let's update our Inventory microservice to publish a new event that will notify subscribers any time the inventory bag of a user is updated.

In Inventory repo

1. Update Contracts:

```
namespace Play.Inventory.Contracts
{
    ...
    public record InventoryItemsSubtracted(Guid CorrelationId);
    public record InventoryItemUpdated(Guid UserId, Guid CatalogItemId, int NewTotalQuantity);
}
```

2. Update GrantItemsConsumer:

```
public class GrantItemsConsumer : IConsumer<GrantItems>
{
    ...
    public async Task Consume(ConsumeContext<GrantItems> context)
    {
        ...
        if (inventoryItem == null)
        {
            ...
        }
        else
        {
            ...
        }

        var itemsGrantedTask = context.Publish(new InventoryItemsGranted(message.CorrelationId));
        var inventoryUpdatedTask = context.Publish(new InventoryItemUpdated(
            inventoryItem.UserId,
            inventoryItem.CatalogItemId,
            inventoryItem.Quantity));

        await Task.WhenAll(inventoryUpdatedTask, itemsGrantedTask);
    }
}
```

3. Update SubtractItemsConsumer:

```
public class SubtractItemsConsumer : IConsumer<SubtractItems>
{
    ...
    public async Task Consume(ConsumeContext<SubtractItems> context)
    {
        ...
        var inventoryItem = await inventoryItemsRepository.GetAsync(
            item => item.UserId == message.UserId && item.CatalogItemId == message.CatalogItemId);

        if (inventoryItem != null)
        {
            ...
            await inventoryItemsRepository.UpdateAsync(inventoryItem);

            await context.Publish(new InventoryItemUpdated(
                inventoryItem.UserId,
                inventoryItem.CatalogItemId,
                inventoryItem.Quantity));
        }
        ...
    }
}
```

END IN ITEMSCONTROLLER WITH LINE 63 AT TOP

4. Update ItemsController:

```
public async Task<ActionResult> PostAsync(GrantItemsDto grantItemsDto)
{
    ...
    await publishEndpoint.Publish(new InventoryItemUpdated(
        inventoryItem.UserId,
        inventoryItem.CatalogItemId,
        inventoryItem.Quantity));

    return Ok();
}
```

5. Publish contracts NuGet package:

```
dotnet pack -p:PackageVersion=1.0.1 -o ..\..\packages
```

In the next lesson we will update the Identity microservice to publish events when the user gil is updated.