Generating a version number for NuGet packages

Start

Let's see how to use GitHub Actions to generate a version that we can use for our contracts NuGet package.

In GitHub (Play.Identity repo)

1. Go to Actions and select the CI workflow yaml

2. Click Edit this file

3. Add a new generate-version job, before the package-contracts job:

   generate-version:

     runs-on: ubuntu-latest

     steps:
     - uses: actions/checkout@v2

    package-contracts:
    …

4. Search for **Github Tag Bump** in the Marketplace

5. Copy and paste the action in the generate-version job

6. Update action details and add outputs:

   ```
   generate-version:

     runs-on: ubuntu-latest

     steps:
     - uses: actions/checkout@v2

     - name: Github Tag Bump
       id: tag_bump
       uses: anothrNick/github-tag-action@1.36.0
       env:
         GITHUB_TOKEN: ${{ secrets.GITHUB_TOKEN }}
         INITIAL_VERSION: 1.0.2
   ```

DEFAULT_BUMP: patch

    outputs:
     new_version: ${{ steps.tag_bump.outputs.new_tag }}

7. Update package-contracts job to use the generated version:

 package-and-publish-contracts:

  runs-on: ubuntu-latest
  needs: generate-version

  steps:
  - uses: actions/checkout@v2

  - name: Setup .NET
   uses: actions/setup-dotnet@v1
   with:
    dotnet-version: 5.0.x

  - name: Pack
   run: |
    dotnet pack src/Play.Identity.Contracts/ \
    --configuration Release \
    -p:PackageVersion=${{ needs.generate-version.outputs.new_version }} \
    -p:RepositoryUrl=https://github.com/${{ github.repository_owner }}/play.identity
    -o packages

8. Commit changes

9. Check the job status

10. Verify the package generated with new version

In the next lesson you will update your workflow to publish the generated NuGet package.