

# Software Development Task

Hands-on test using C# over .NET Core

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## General Context

One of our clients is heavily using an old API based on SOAP to manage business logic. All is fine except development is laggy and the client's development team is always behind schedule. We want to create a quick fix by creating a wrapper for the old API. All incoming requests will be served by our wrapper service as JSON over RESTful APIs. Inside, requests will be mapped to XML and will be invoked against the old API mechanism. Once response is ready, our service will map the resulting payload (XML) back to our API service (JSON).

## Task Definition

Your task is to implement a POC for the part where a request from our wrapper is mapped to the old format of the legacy API. Because our service is built on-top of a modern stack, all you need to demonstrate is the ability to transform values for a specific module into a valid XML schema.

## Acceptance Criteria

- Solution must translate values to a valid XML schema
- Implementation should be as generic and reusable as possible
- A basic error handling should be provided to avoid failures
- You may skip performance issues in favor of completing the task itself

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## Assets

Consider the following requests when you design and implement your solution:

```
<UserLoginRequest>
  <UserName>jhon</UserName>
  <Password>verySecuredP@ssw0rd</Password>
</UserLoginRequest>
```

```
<UserLoginRequest>
  <UserName>emma</UserName>
  <Password>123456!</Password>
</UserLoginRequest>
```

```
<UserInformationRequest>
  <UserId>A78b54gx0-uhj8</UserId>
</UserInformationRequest>
```

## Bonus Task

Convert the response our wrapper retrieves from XML to JSON format. You can use a 3rd-party library in order to complete this task. Please demonstrate the process using this response:

```
<UserLoginResponse>
  <UserId>A78b54gx0-uhj8</UserId>
  <SessionKey>_sdjh765riuyh</SessionKey>
</UserLoginResponse>
```

Good Luck 😊

