Unit 10 Assignment: Overview and Outcomes

Capstone Team

Department of IT, University of Purdue

IT488: Software Product Development Using Agile

Professor Robert Kayl

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In order to deliver an application to an end user the software needs to be packaged and distributed. To properly prepare software for distribution you must consider your end users and the appropriate distribution method. For example, is your app for a mobile device, is it accessed via a website or is it a native application that needs to be downloaded to a local device. In early computing the construction of an application was as simple as compiling an executable file and copping it to a disk. Now due to the increased complexities and very sophisticated systems installations are not as straightforward. And due to the multitude of options available for a user to download and access and application some careful thought and consideration needs to be taken to properly package and distribute an application. Following is an overview of the product our team developed along with an overview of the deployment solutions we considered and the one we chose.

Our application, Mountain System, contains a SQL database and a frontend user interface. We decided that we wanted our application to be available to an end user via a download option. Our application is not configured for a mobile device so we did not have to consider deployment to an app store as an option. Since we wrote our code in Visual Studio we felt that this would be a viable option. We also considered GitLab CD since we stored our code in GitHub and that solution offers a package and deployment method as well. Following is a high-level overview of each of these deployment options available for each of those solutions.

Visual Studio allows you to package and deploy an application via a wizard, which is especially great for new software developers. Visual Studio has many publishing options like Azure, Docker Containers, File Transfer Protocol/Secure File Transfer Protocol (FTP/SFTP) servers or a Web Server. Additionally, you can create an installer package, or otherwise known as an executable file.

Gitlab CD is flexible, specifically for new developers. Gitlab CD allows software developers to deploy modules as they become available. Essentially, one can build a system incrementally and deploy it as needed. Gitlab CD also has a wide range of deployment options that include things like Docker and the user of containers. Since Gitlab CD is really aimed towards software developers it was a strong contender when considering the best possible solution.

In the end we chose Visual Studio to deploy our application and we chose it for the following reasons. The publish tool is a wizard that makes it simple to compile and package the program. We appreciated the ease at with the wizard walks you through the whole process from start to finish. We also were drawn to the fact that there is a multitude of options to where you can choose to publish the application to which includes, but is not limited to an FTP server, Universal Naming Convention (UNC) valid path or website. While there are many modes for where you can publish an application we landed on putting it on a website so that it would be widely available to end users. Overall we felt that for our application Visual Studio Publisher was the best solution.

References

https://learn.microsoft.com/en-us/visualstudio/deployment/how-to-publish-a-clickonce-application-using-the-publish-wizard?source=recommendations&view=vs-2022