

Abstract

The audience for beginner programming is expanding as more and more people have a growing interest in the subject due to its high applicability and growing job sector in the modern world. Students are being exposed to the world of programming at a younger age than ever before. Thus, the popularity of engaging tools to learn the abstract concepts of programming has grown phenomenally in recent years.

There are various beginner-friendly programming environments; two of particular relevance are: 1. Scratch - from the MIT Media Lab, and 2. Pytch - produced in TCD and is intended to follow on to Scratch for introducing Python. In this research work, we consider a potential follow-on environment to Pytch and provide a new learning platform for users to explore web application development in a platform designed to leverage existing knowledge gained in Scratch and Pytch.

'Flask from Scratch' is a fully-browser based online learning platform to teach web app development using the Pythonic web framework called Flask. The proposed service is intended to be used as part of an educational framework for beginners who are moving on from simple introductory programming environments and want to start building more practical web applications but want a low barrier to entry. The new online environment would enable students to quickly jump into the Flask framework without any complex setups and provide guided tutorials to learn the crucial concepts of Flask and web application development in general.