CENG 491

Project Proposal Report

HTML5 Canvas Workflow Diagram Editor

Sponsored by

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Team TriUlti

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2) Motivation & Purpose

Workflow is a term that is used to describe tasks, procedural steps, input and output information, and tools that organize steps of plans, generally focusing on processes and their relations. Nowadays, big companies are using workflow component programs, named as workflow editor, to manage and enforce the work that is handled at these companies to provide speed, consistency and easiness. However, market of the workflow editors encounters some problems that have to be handled.

The most important one of the problems is to be reachable. These editors should be used not only by big companies but also by companies which are not enough budgets to spend their money for the purpose of workflow editors. Most of big companies are using workflow editors which are for their own usage and not good enough to be used by other users who are not in same company. Therefore, new approaches should be developed in order to handle the problem appropriately. We think that everybody, who needs to use workflow editor, should easily find this editor whenever he needs to use.

Another issue is that there are lots of altering usages of platforms in computers which can be called compatibility problem. Some workflow editor work on some platforms, some of these do not. Because of this compatibility problem, we think that there should be a workflow program that can run on almost the entire platform that people use. For now, we think to develop this program for Windows, GNU/Linux platforms and Chrome, Firefox, Internet Explorer 9 browsers.

In this project, we will work on a workflow editor that can be a solution to these issues stated above.

3) Project Description

The iFlowEdit project covers, as its name implies, editing of workflow diagrams including most commonly used diagrams such as flow chart, E/R, UML. In addition there is no limitation just as a editing. End-users are able to create these and many other diagrams from a scratch or from a blank page. Keeping edit-finished diagrams can also be handled in end-users device or in the data server of the programme. We used here a generic word *device* not a desktop, laptop, iPhone or something else. Since the iFlowEdit is mainly written in HTML5 and JavaScript which are supported in any device has up-to-date internet browser regardless of its operating system.

The project has a great feature for the users and companies who uses Microsoft Workflow Foundation; because they will be able to convert and sync their workflow diagrams to iFlowEdit and vice-versa.

There is always limitation for a project without considering what the project is and about. Hence we have one. That problem depends on just browsers. Major internet browsers' up-to-date versions support HMTL5 but not completely sometimes. We are going to resolve and overcome this problem via using common supporting features of these browsers. Actually we have one more little problem but in fact it is not a limitation for us. If end-user does not have last version of the browser which does not supports HTML5, the user cannot use the iFlowEdit but this is user's problem and decision to update or not to update. For instance a user uses IE6 cannot use iFlowEdit.

As we explained, at the end-project, users can create diagrams such as flow chart, E/R, UML, etc. There exists some ready-made activities, users can also create some; and these activities can be used directly in editing via dragging and dropping. As all we know connections among activities are also available in the product. At the end, users can save their diagrams as XAML and PDF and sync to WF.Net. Here there is not going to be any artificial intelligence to create your diagrams or help to create or draw the diagrams for you.

Anyone, needs to draw-edit-create any diagram, can use our end-product. Except these, any company can use it as commercial purpose. Beside, Innova makes the project a part of their one of large project. In addition, WF.net users can make us of the feature of WF.net to our project side. We know live examples for diagram creating; CENG350 lesson's diagrams and CENG352 lesson's diagrams and flowcharts.

The end-product will be a diagram editor for large spectrum of user. The end-product's main specification is being platform independent and not requiring of

Adobe Flash. Therefore we are going to demonstrate high-speed and well-qualified product having ready-made diagrams.

4) Market Research

As far as we have researched market, many companies and organizations are providing solutions on workflow editors. For example, Creately is one of the well-known editors that are used lots of people. However, it gives a restricted usage for people who freely access this editor. It does not provide full access for all properties of the program without money. It also needs to ride on Java and use Flash. So, without these, people cannot use Creately. Thus, it is crucial to have a reachable and compatible editor to be successful in this market.

In addition, there are a lot of program that was produced for workflow diagram creation like Gliffy, Edraw.

After sufficient research on the market about workflow editors, we saw that there are lots of similar programs that was produced, however, we did not see exact equivalent of this project currently in the internet. It is expected to have greater demand among people that needs workflow editor.

5) References

- Creately Workflow Editor:

  http:// http://creately.com/

- Edrawsoft Workflow Editor:

  http://www.edrawsoft.com/workflows.php