PAIWASTOON پیوستون

تهیه کننده تکنالوژی معلوماتی برای افغانستان | افغانستان لپاره د خبرتیایی تکنالوژی برابرونکی

| 8th street of Taimani I Next to Pajwak I Kabul I Afghanistan | کوچه ۸ تایمنی | پهلوی پژواک|کابل| افغانستان | د تایمنی ۸ مه کوخه|د پژواک ترخنگ| کابل|افغانستان |

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J2ME XML Based Interactive Learning Developer

Overview:

PAIWASTOON is seeking a developer with experience in Java and preferably Java 2 Micro Edition to develop a MIDLet that will read data about one a predefined set of mini interactions from an XML http with the user (e.g. multiple choice quiz, hangman game, etc) and then allow the user to complete the exercise on the handset. There are roughly 15 interaction miniformats The rough flow is as follows

- The first tag of the file will describe the type of interaction that is going to be used.

- Subsequent tags will describe the base information for the exercise (e.g questions, correct answers, etc)

- The midlet must record usage to include the time spent on each activity and the success and failure rates.

- An XML table of contents must be read that will show the users the chapters available in a given piece of content.   This should be displayable as a menu in the midlet. The user should then be able to jump to any desired piece of content.

- A small amount of python code will be used in an existing piece of software to generate the XML file. It need only take existing variables / fields and then generate an XML string.

- A 'post processor' will convert media to a format suitable for most mobile platforms (e.g. 3gp) and resize images. The current editing environment is targeted mostly towards desktop browsers.

- Midlet should be signed to have read/write access to the SD card.

- Midlet and required libraries must not exceed 200KB (does not include external images, etc)

Interaction Formats include:

1. Basic Math Drill - two random numbers are generated between ranges specified in the XML file, an operator is specified to generate a question at random. For numbers less than 20 this should be represented by a picture of an object.
2. Fill in the blank – a paragraph has a number of blank spaces and the user must type in the correct answer into each blank space.
3. Click in Order Exercise – a hint is given that corresponds with a given location on a diagram / image. If the user selects the correct place on the diagram show positive feedback, otherwise show negative feedback.
4. Falling Object Speed Answer Questions: Objects generated at a given interval with a given picture

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have a question associated with them. The user must answer the question in a text box before the object reaches the end of the screen. If the user answers correctly increment the score, if not then reduce the number of 'lives' remaining

5. Free Text – text and images to be roughly adapted from HTML.

6. Hangman Game – A number of hints and answers with a given set of letters to choose from for the answer. Each time the user selects a wrong letter change the image until the user has no lives remaining and must restart.

7. Memory Match Game – a set of tiles with matches available. The user chooses two to show at a time – if they match then the tiles should disappear. If they do not match then the tiles must be re-hidden.

8. Missing Letter Game – Show a word with a missing letter alongside a picture – the user must choose from a set of letters that could be the missing letter.

9. Multiple Choice Question – a set of questions with multiple answers. User must select one from the given options.

10. Multi Select – a set of questions with multiple answers of which one or more may be correct.

11. Place the Objects – there is a master diagram and the user must take items from the 'part bin' and place them on the diagram in the correct place.

12. Slideshow – a set of images / text are displayed in sequence each with a sound file that should play in the background at the time of display

13. Sort Items – A list of items that should be shuffled and the user should then sort into order.

14. True – False Questions – A set of questions with radio buttons for true and false that the user should select from.

15. Crossword – a set of words that should be displayed in a crossword with hints for each word.

Skills Required

1. Java development (preferably though not mandatory to include J2ME)

2. Familiar with XML

3. Strong remote working discipline

Interested?

Please email mike@paiwastoon.com.af with your details, experience and a rough estimate of the amount of compensation you would expect to complete this job.