Employment Kiosk

Swathi. P.K, Suhrita. K, and Dr. K.L. Shunmuganathan

3rd year, Department of Computer Science and Engineering, R.M.K. Engineering College
3rd year, Department of Computer Science and Engineering, R.M.K. Engineering College
Head of the Department, Department of Computer Science and Engineering, R.M.K. Engineering College

Corresponding Author: Swathi. P.K

Abstract
The major reason for poverty in most of the places is unemployment. To improve the financial status of a person, a good employment is required. This model is used to provide employment and eventually eradicate poverty. The idea is to install kiosk booths in poverty struck areas. The kiosk will bridge the gap between recruiters and unemployed person. The kiosk contains information about the job vacancies throughout the world. Each person below the poverty line is given a 4 digit unique pin which will be used by him/her to access his/her account. The database of each account user is maintained. When the person enters his 4 digit pin, all the jobs related to his/her domain are displayed and the person can select the job which suits him/her the best. Later a hard copy in the form of printout is produced which can be used by the person to get job from the particular company. We might not be sure that the person who is going to use the kiosk is a literate or not. Therefore the output from the kiosk comes as speech. The input which is to be given to the kiosk by the user is in the form of numbers. The voice which is from the kiosk can be the local’s language. Therefore by providing job opportunities for people struck by poverty and by providing proper guidance to them, poverty can be eradicated.

Keywords: kiosk, mongodb, touchscreen, linux, virtual keyboard

INTRODUCTION
The Employment kiosk gives a solution to the problem which is raised now, poverty alleviation. The basic idea is to build an Employment kiosk where a direct link exists between the firm which provides job and people who require it without the involvement of a middle man. When a person chooses the job he/she wants, an intimation is sent to the company regarding the same and a letter is printed immediately for the person to carry the same during interview. The kiosk is made user friendly. Open kiosk is one of the best kiosk software available in the open-source community. Its goal is to achieve simplicity and elegance in kiosk terminals. The benefits of the proposed model are as follows
- Easier to find job
- Can get work in their field of expertise
- Can know the job competition
- Need not struggle to search for job
- Immediate employment

By implementing this idea, the development of a country can also be achieved. The reason is that when the people of a particular country are employed, the economic status of the country will be uplifted because the people below the poverty line will be slowly moving out. As a result of this, the National capacity of a country is well built and a country reaches a higher status.

STRUCTURE
Kiosk software is a system and user interface software designed for an interactive system. The software locks down the application in order to protect the kiosk from user manipulation. The locking system is done by prevailing entry through a password or card. This software can be extended to offer remote monitoring to manage multiple kiosks from any location.

Kiosk software that is created has a touch screen. The touch screen allows the user to touch the monitor screen to make selections. A virtual keyboard is used instead of the computer keyboard.

Text-to-speech technology brings the written word to life, offering people who are not trained to read and write.

Options are to be clicked for selection by the user.

Fig. 1 is a flowchart which shows the process flow. Initially the pin is entered and checked whether it is valid or not. If it is valid, it proceeds to the next step and if not the process terminates. Then the details of the user are compared with the requirements of the company which exists in the work base. After the comparison, the jobs which match the user are given to the user from which he is asked to shortlist according to his requirement. Finally, the letter is
printed for the user to carry over while he/she meets the company executives.

**PROCESS FLOW**

![Process Flow Diagram]

**ALGORITHM**

```plaintext
begin
read the company details from the memory
read the employee details from the memory
if company number = "cpin"
begin
if input = "update"
begin
read the details from the user
update the information in the memory
end(update)
end
if employeedetails = jobdetails
begin
select the desired job and company
send a confirmation print to the employee
details
end
end(cpin)
if employee number = "epin"
begin
if input = "update"
begin
read the details from the user
update the information in the memory
end(update)
end
if jobdetails = employeedetails
begin
select the desired job and company
send a confirmation print to the employee
details
end(epin)
end
```

**KIOSK**

There are different types of kiosks which are used for various purposes. Some kiosks come with a keyboard while some are touch screen. There is no necessity for a kiosk with keyboard in this case because the input is only numbers and no alphabets are used. Therefore a kiosk with only Numerical pad or a touch screen kiosk is used. Based on the analysis made by us regarding the type of kiosk to be used, we settled on edge wall mount (Fig.: 2) as it appears economical and also user friendly. A printer can also be connected to the kiosk in order to print the letter which is to be carried by the user. It is more important that a speaker is connected to the kiosk as the output from the kiosk is in the form of voice. For better understanding by the user, good quality speakers are to be connected to the kiosk.

![Kiosk Image]

**PROGRAMMING THE KIOSK**

HTML with CSS is used to design the front end of the kiosk. HTML is more user friendly when compared to other programming languages and is also easy to code. The back end is programmed using PHP which is a server side scripting language designed primarily for web development but can also be used as a general-purpose programming language. The database is maintained using MongoDB which is a cross platform, no SQL database.

**OPERATING SYSTEM**

Employment Kiosk is a Linux-based operating system, developed for self-service terminals. Thus a very simple and cost effective device can be made. Approved for different platforms and hardware configurations - including low processing power machines - the system provides a tool for remote
administration and comfort to users by supporting touch screen devices.

**KIOSK ARCHITECTURAL NEEDS**

**Secure Browser**
The KIOSK SERVICE PLATFORM (KSP) browser uses an IE8-based browser. This browser allows developers to use web based development tools and duplicate the web’s look in the custom applications. This function allows easy porting of existing web-based applications to the kiosk.

**Local Kiosk and Device Control Function**
KSP controls all devices connected to the kiosk I/O ports and uses the local program to monitor the status, control the terminal and peripherals. The KSP manages all maintenance and servicing requirements. The software platform handles all exceptions locally. KSP uses the intelligent middleware to maintain constant knowledge of the states of all hardware components and kiosk peripherals. If a failure occurs the detailed information is automatically forwarded to management and maintenance, they suggest repair actions together.

**Management and Maintenance Function**
KSP set operations like menus, volume control, security code settings, shut down and restart functions, log file management, etc. To simplify the maintenance guidance is provided on the screen of the kiosk.

**SECURITY**
The system software addresses security by deterring users from maliciously attacking or hacking into the kiosk. It is critical that the kiosk software prevent the user from ever reaching the desktop or file system. This type of security can be difficult because standard print dialog allows the content to be printed to a file and enable the user access to the file system. Kiosk software comes in a number of versions. A standard lockdown browser environment or information kiosk software where a touch screen keyboard might be needed. The touch screen keyboard is often part of the kiosk software and is custom touch screen keyboard.

Kiosk software has the facility for an administrator to configure the software to suit the users Administrators can enable or disable parts of the kiosk software via secure log in.

Additional kiosk system software can be attached to secure the kiosk more effectively.

**Security Features**
- Multiple security levels are present for management and maintenance
- Secured customer information are not stored locally
- Secured customer information are protected in case sessions
- Proximity sensor a type of sensor that indicates when a user has left the kiosk without logging out, then secured customer information is deleted automatically after some time.

**PERVASIVE NETWORKING CAPABILITIES**
In the past, the only way to update or modify a kiosk application was to reinstall the kiosk software in each place. But now advances in network computing has made it possible to update kiosks from a centrally located computer, which has made it easy to enter the changes in price, up-to-the-minute product availability, or new interest rates, etc. In addition, a growing number of organizations are saving on hardware costs by installing kiosks that are "thin clients" (computers with limited processing power and storage capabilities networked to a central client/server application to control most of the kiosk operations).

**EASIER INFORMATION ACCESS**
Kiosks can dispense information 24/7, minimizing the need for customer service personnel. Open Kiosk is an integrated multi-platform kiosk management system. Open Kiosk is suited for use in locations where a controlled computing environment is paramount such as public access systems. Open Kiosk simplifies the way users launch and interact with programs making it an ideal solution for introducing a Linux box to newcomers. The Kiosk Mode Desktop can be administered remotely, by completely replacing the standard Linux/Windows desktop with a much more controlled but intuitive environment that looks the same across all platforms. The customer will not know whether you are running a Windows or another OS under the hood.

**FRONT END OF THE KIOSK**
Fig. 3.1 shows the screenshot of the first page of the kiosk in which the pin of the user is to be entered.

![Fig. 3.1: First page](image-url)
Fig. 3.2 shows the screenshot of the second page of the kiosk which displays the details of the recruiting companies.

![Company Details Screenshot](image1)

Fig. 3.2: Company details

Fig. 3.3 shows the screenshot of the approval form which will be made as a hard copy.

![Approval Form Screenshot](image2)

Fig. 3.3: Approval form

CONCLUSION
The main reason for poverty is unemployment. When a solution to unemployment is found then poverty eventually gets eradicated. This is an attempt to find a solution to unemployment by bridging the gap between an unemployed person and a company without the involvement of a third party. By giving proper guidance to people struck by poverty, it is positive that they get the job they deserve.

REFERENCES


