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MirrorITpc

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ABSTRACT

Everyone knows both mobile phones and computers such as home PCs and laptops, so everyone has expensive or cheap mobile phones. We know that computers can be controlled by the user on a client- server basis. But I would like to share new technology for controlling computer systems with mobile phones. We mainly connect mobile phones to laptops and PCs to share information, but the idea of this project is to allow your mobile phone to control your PC. In this project, you can connect your computer's hardware and software to your phone and use the phone to turn your computer on and off, or use the same phone to perform some of your computer's tasks. make. It basically turns your smartphone into a wireless keyboard and mouse with a touchpad. This software can run on a wi-fi connection among a PC or pc and a phone with an Android working system. By gaining access to the IP deal with of your PC, you may set up a connection among your PCs thru a Wi-Fi connection. The software now no longer simplest turns your phone right into a wi-fi keyboard and mouse, however additionally offers numerous capabilities together with record transfer, record download, photograph viewer, presentation, media player, stay screen, electricity off and more. The applied software includes parts. One is a software for Android smartphones and the opposite is a JAR software for Windows PCs that executes instructions decided on through the person software. The end result of this implementation is a snug and easy-to-use software.

Keywords: *JAR software,* Wi-Fi, IoT devices

INTRODUCTION

In order to operate a computer from an Android phone without a data cable or mobile data, or from a Windows computer, our project will create an application for both platforms that uses a hotspot with a specific IP address. The best part about some of these Android applications is that you can share your screen with them to take full GUI management of your desktop computer. They can manage your other devices over local Wi-Fi. Controls for Left and Right Clicks, Mouse Scrolling, and Text Entry Transfer files between a laptop and a phone, download files to a phone using a laptop as a speaker, see photographs from a phone on a laptop, etc. control a laptop presentation via a phone, utilize your phone to suspend, restart, or shut it down your laptop. You may even download your laptop's screen to an Android device (just one click is supported) (View and Download).

Computers, laptops, and other electronic devices are become an integral part of daily life. Personal computers are increasingly utilized for leisure in people's free time rather than for working purposes. This is true for mobile phones as well, which have evolved into multipurpose devices with nearly identical functionality to computers. Smartphones are widely used in

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commerce and are available with a variety of functions, including Wi-Fi, Bluetooth, Internet access, cameras, and video recording. Android smartphones are particularly well-liked due to their low price and user-friendly interface. The goal of our proposed application is to exploit both the hardware characteristics of smartphones as well as numerous helpful libraries from the Android API. It is compatible with both environments and beneficial in both. As a consequence, a programmer that combines several pointing devices is produced. Wi-Fi is used to wirelessly link smartphones to laptops; a desktop computer needs an additional modem to provide a Wi- Fi connectivity. Android is currently among the most popular mobile operating systems. Along with the operating system, Android also includes middleware and important apps. In 2003, Andy Morgan, Rich Miner, Nicholas Sears, and Chris White invented Android in Palo Alto, California, in the United States. Later Google purchased Android Inc. in 2005. Numerous upgrades have been made to the initial version of Android since its introduction. In our project, the android application connects to a jar executable file utilizing HOTSPOT capabilities so that the android programmer may control the entire pc. This jar executable file runs on Windows PCs.

The Objective of this project is to develop android and windows application for controlling the pc which user can use the pc using android phone without mobile data or data cable which works through hotspot with specifiedIP address.
User should install the two applications such as mirrorITpc.apk for android and mirrorITpc.jar for windows, run jar executable file in windows and connect your mobile hotspot, jar provide specified IP address and connect your mobile app using jar IP address

Android app have features such as

- Keyboard typing capability with shortcut keysand multi-functional keys
- Touch-screen mouse control with two onscreenmouse buttons.
- File Transfer from android phone to windowspc
- File Download from windows pc to androidphone
- We can display the phone Image file inwindows pc
- We can control mp3 using mobile phone andthe output of mp3 in windows pc
- We Can control Presentation without difficulties
- We can fetch the Live Screen of windowsthrough mobile
- Power Off which have certain features likeShutdown, Restart, Sleep, Lock.

LITERATURE SURVEY

The connections between computers and smartphones are becoming closer and closer due to the rapid development in smartphones and wireless networks. Today's modern civilization depends on computers and mobile phones for daily tasks. The interchange and transfer of information between them has becoming more regular. The goal of this research is to discover a secure connection method that is affordable, low-power, easy, and adaptable so that we can complete the information exchange between a mobile device and a computer quickly and precisely. The real line transmission is not needed when employing a socket connection method. (2018)'s explanation of remote desktop management and surveillance comes from Angel Gonzalez Villan. With the aid of socket programming, it is possible. LAN or WAN will act as a server in this project's Java RMI-based system. The steps in this

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project are to log in, link to a server, and then have a desktop shown on the server computer. The server may then communicate with and manage the client. The server's IP address and the port number on which the application is executing are also provided by this module.[1]

As China steadily enters the information age of networks, technologies such as the Internet of Things based on computer networks are gaining popularity. It has also greatly improved the comfort of people's work and daily life. In addition to facilitating the use of remote control technology, the development of IoT devices also needs to set better standards for network security. In order to secure the security of data and communications as well as the smooth functioning of the IoT devices, the computer network security risks in which the IoT devices is based must be reduced. By doing so, it will be possible to ensure that the IoT can carry out all of its necessary duties and advance the social economy of my nation.[2]

Remote computer allows customers to remotely get admission to their computer systems through the Internet, that's extensively used as a fundamental device in regions together with faraway paintings, faraway help and faraway administration.

However, present faraway computer is designed to paintings withinside the mode of updating person`s real-time command and faraway screen's nation interactively for a higher person experience, such running mode may also motive severe side-channel statistics leakage hassle despite encryption of the visitors, as discovered on this paper. We perform experimental studies to evaluate the side-channel statistics leakage of six maximum famous faraway computer softwares in Windows 10 & 7 platforms: Anydesk, ConnectWise, MicroRDS, RealVNC, Teamviewer, and Zoho Assist. With the assist of system studying strategies along with logistic regression, aid vector system, gradient boosting selection tree, random wooded area in addition to statistic functions of go with the drift burst, we look at that an adversary can excellently uncover (pinnacle at 99.26% TPR, 0.57% FPR, 97.17% F1-score) five hard sorts of each day sports protecting modifying files, studying files, browsing webs, looking movies and putting in softwares or even worse exactly classify four satisfactory sports predefined as modifying files with Microsoft Office Word and the alternative 3 edit equipment with excessive genuine superb price and occasional fake superb price. Our outcomes show the reality for remote computervisitors encryption mechanism is not anything enough to save you side-channel statistics leakage and each customer and carriers of faraway computer must pay greater interest to such severe privateness leakage hassle.[3]

METHODOLOGY

Networks can only be implemented using the socket programming method. Sockets are used for communication between computers and smartphones. This can be done using a protocol called Transmission Control Protocol (TCP). First, create a socket on yourAndroid smartphone and connect it to your computer via a mobile hotspot. Sockets are also created on your computer. In our research, smartphones are clients and computers are servers. The client and server communicate by sending packets to each other. The Server_Socket object is created on the computer that knows the port number with which it is communicating.

System Architecture

System architecture is a conceptual design that defines the structure and behavior of a system. An architectural description is a

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formal description of a system organized in a way that supports inference about the structural characteristics of the system. It defines.

It is a system component and provides a blueprint for procuring products and developing systems that work together to implement the entire system.

Flowchart of working application

Algorithms, workflows, or processes are represented by diagrams, which are a type of flowchart. The flow chart shows the steps as a series of boxes of different sizes, with arrows connecting the boxes in the correct order. This schematic shows possible solutions to a particular problem. Flowcharts are used in process analysis, design, documentation, and programmer management in many different areas.

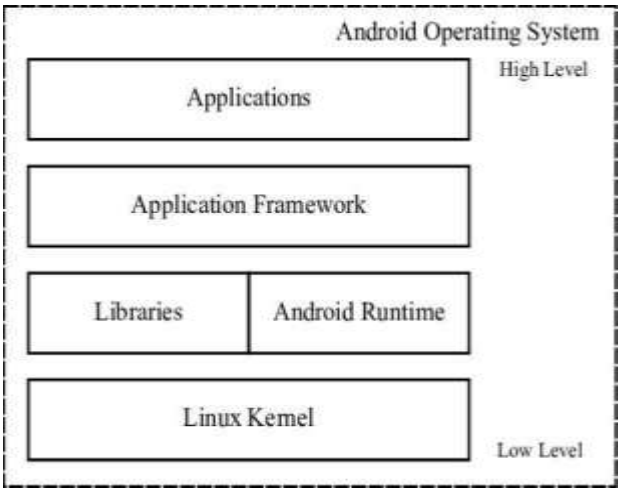

Fig.1: *System Architecture*

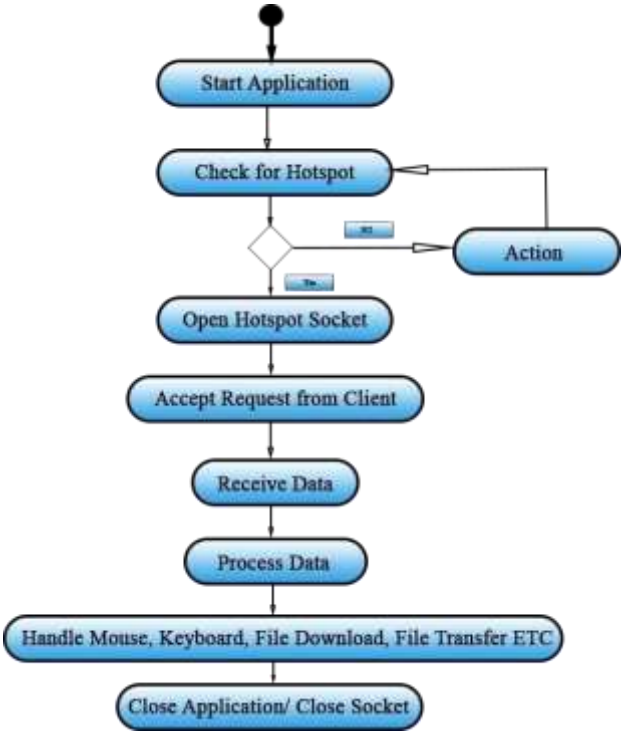

Fig.2: *Flowchart of working application*

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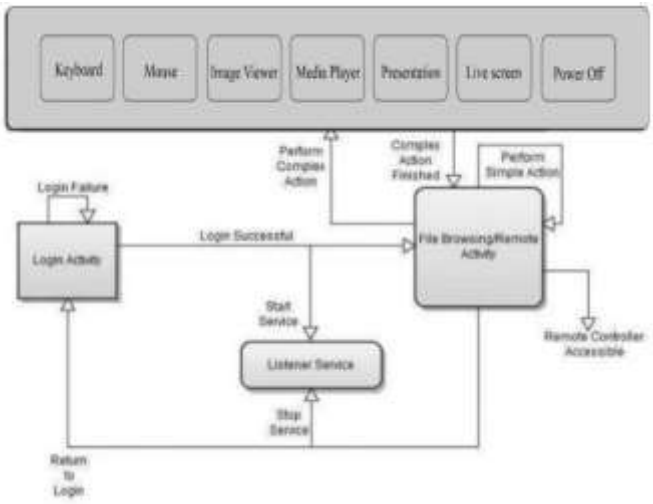
Data Flow Diagram

The data flow (DFD) shows how data "flows" through a management system graphically. DFDs may also be used for data processing visualisation. DFD gives no details on the scheduling or sequencing of processes, or if they will run sequentially or concurrently.



Data is first pre-processed, and then a feature is added. The classifier is then provided the feature extraction output for classification.

The pre-processed output of the prediction process, which compares the input picture to the outcomes of classification, is then fed to the process of checking the input image for species.

FEATURES

1. Media player are made simpler in terms of pause, play, rewind, control options, etc.
2. Slides presentation is made easier for the users.
3. All the operations that the user handle is done with the help of an Android OS.
4. These available features result in the use of wireless connections made between the computer and the mobile device.
5. File Transfer made easier to transfer between android device and computer.
6. Optimized screen casting for efficient bandwidth usage.
7. PC controls such as power-off, restart, sleep and screen lock.

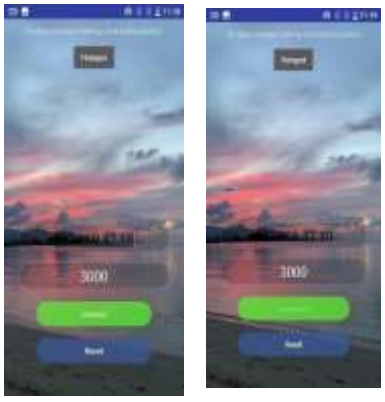


Fig .3: *Login Page*

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This is the login activity where we should enter the hostIP address and Port number.

***Fig .4**: Main Page*

This is main Activity where we have different operationsthat we want to perform.

***Fig .5**: Presentation Layout*

This is the Presentation window, where we can click on F5 for slideshow and also we can change the slides through the arrow keys.

***Fig .6:** LiveScreen Layout*

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This shows the Live Screen of the pc in android device

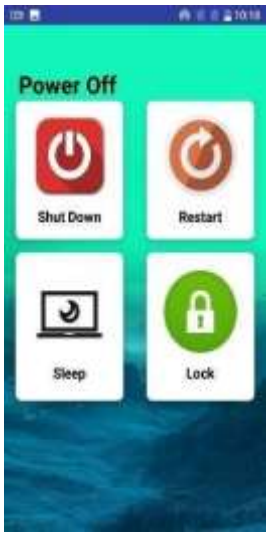

Fig .7: *Power Off Layout*

This is the Power Off option, where we have multipleoptions such as Shut Down, Restart, Sleep and Lock.

CONCLUSION

The goal of this project was to develop a remote desktop application using Java with Wi-Fi as the communication medium. This project will provide users with full access to the mouse and keyboard of the server computer processed by the Android phone. This project is primarily aimed at gathering ideas for developing Android and computer applications using Java. The project was successful and completed on schedule. The application is available, but it has some bugs, including: B. Works only with premature crashes and irregular mouse movements, and English layout keyboards. Also, this project will not work on phones without Bluetooth and phones with Android OS prior to version 2.0. Bluetooth is successfully implemented on the phone to communicate between the server and the client application.

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