



WID2001 KNOWLEDGE REPRESENTATION AND REASONING

User Manual

Tutorial Group: 1 & 2

Group No : KRR_G4
Group Name : AnyThink
Title : rEX (Ransomware Expert System)
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Group Members:

No.	Name	Matric No.	Roles	Tuto
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Installation

rEX is distributed as a container image hosted on dockerhub:




<https://hub.docker.com/r/jackmin801/rex>

The source code is available at:

<https://github.com/Jackmin801/prolog-ransomware-expert-system>

Prerequisites

First make sure you have docker installed by running docker ps

```
code on  main via  v3.8.12 via  base
> docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
```

If you need to install docker, follow the guide here:

<https://docs.docker.com/get-docker/>

Deployment

You can deploy the app using the command below:

```
$ docker run --name rex --rm -p 8080:80 -d jackmin801/rex
```

Stopping container

To stop the application user the command:

```
$ docker stop rex
```

Interact with rEX

The interaction can be started by entering start into the chatbox.

rEX: Cybersecurity Expert System

start

How can I help you? Enter a number for option:

1. How do I protect myself against ransomware?
2. Can you tell me more about ransomware?
3. Exit

rEX

Submit

For the menus, user integer inputs to select the option you want.

rEX: Cybersecurity Expert System

start

How can I help you? Enter a number for option:

1. How do I protect myself against ransomware?
2. Can you tell me more about ransomware?
3. Exit

1

Enter a number for option:

1. Is my password good?
2. Should I install this app?
3. Should I trust this website?
4. Do my employees have too much access?
5. Is it time to backup my data?
6. Should I update or scan my system?
7. Is my code safe to commit?
8. Should I turn on my firewall?
9. We've been hit by ransomware! What should we do?
10. I think I know enough. (Previous prompt)

rEX

1

You can dialog with rEX through the interface and rEX will take you through the steps to improve your cyber hygiene.

Does the download site have weird misspellings in the link? [y/n]

y

BIG RED FLAG. This is a very common property of scam sites. **DO NOT DOWNLOAD THIS SOFTWARE.** What company is the software from? (e.g. google, microsoft, oracle)

google

Great! That has historically been a reputable company. Does the download site use https [y/n] Tip: Most browsers have a lock icon you next to the link when the site uses https. Some browsers will display an unsecure or even issue a warning if the site does not use https.

yes

Great! Does the download site have a proper ssl cert? [y/n] Tip: Most browsers have a lock icon you next to the link you can click to check ssl certs. Make sure the exact company name and location is specified in the cert.

tidak

BIG RED FLAG. This is a very common property of scam sites. **DO NOT DOWNLOAD THIS SOFTWARE.** Is the hashsum of the install correct? Tip: You can google how to check hashsum for your specific operating system.

ye

Is your password longer than 8 characters? [y/n]

y

Great! Does your password contain special characters? [y/n]

n

Great! Does your password contain your username? [y/n]

y

You should not have your username in your password. Have you changed your password in the last 6 months? [y/n]

n

10

It is time for you to backup all your data. How many **hours** has it been since your last code backup?
[integer]

2

Great! How many **hours** has it been since your last transaction backup? [integer]

10

It is time for you to backup all your transactions. How many **days** has it been since you last tested the backups can restore your system? [integer]

100

It is time to test your backups work!

Anything else you want to know? Enter a number for option:

1. Is my password good?
2. Should I install this app?
3. Should I trust this website?
4. Do my employees have too much access?
5. Is it time to backup my data?
6. Should I update or scan my system?
7. Is my code safe to commit?
8. Should I turn on my firewall?

You will be informed if your input is incorrect.

How many **days** has it been since your last full scan? [integer]

twenty

Please enter integer value.

How many **days** has it been since your last full scan? [integer]

20

It is time for you to scan all your systems. Are there any dependencies in your code that have outdated versions? [y/n]

Clear chat history

You can restart the interaction and clear chat history by entering restart into the prompt.

Enter a number for option:

1. Is my password good?
2. Should I install this app?
3. Should I trust this website?
4. Do my employees have too much access?
5. Is it time to backup my data?
6. Should I update or scan my system?
7. Is my code safe to commit?
8. Should I turn on my firewall?
9. We've been hit by ransomware! What should we do?
10. I think I know enough. (Previous prompt)

rEX

restart

Submit