***Report for Model evaluation in different parameters***

***Analysis-1***

**Learning-rate:** 2e-5

**Batch-size:** 8

**Epoch:** 10

**Time-taken:** 2hrs

First command with snap, then apt and followed by apt-get is ordered in the dataset.

Output:

Enter a natural language command (or 'exit' to stop): i want to install vim

Predicted Bash Command: sudo snap install vim

Enter a natural language command (or 'exit' to stop): ho do i download and install android studio

Predicted Bash Command: sudo snap install android-studio

Enter a natural language command (or 'exit' to stop): i want to update expressvpn

Predicted Bash Command: sudo snap refresh expressvpn

Enter a natural language command (or 'exit' to stop): how do i delete python

Predicted Bash Command: sudo snap remove python

Enter a natural language command (or 'exit' to stop): i want to install google chrome

Predicted Bash Command: sudo snap install google chrome

Enter a natural language command (or 'exit' to stop): what is the command to install mysql

Predicted Bash Command: sudo snap install mysql

Enter a natural language command (or 'exit' to stop): what is the command to chrome

Predicted Bash Command: sudo snap refresh chrome

Enter a natural language command (or 'exit' to stop): i want to install sublime text

Predicted Bash Command: sudo snap install sublime-text

Enter a natural language command (or 'exit' to stop): get vs code into my system

Predicted Bash Command: sudo snap install code

Enter a natural language command (or 'exit' to stop): i want to install protonvpn

Predicted Bash Command: sudo snap install protonvpn protonvpn-cli is correct

Enter a natural language command (or 'exit' to stop): how do i install java

Predicted Bash Command: sudo snap install java default-jdk correct

Enter a natural language command (or 'exit' to stop): i need microsoft teams installed on my computer

Predicted Bash Command: sudo snap install teams-microsoft

Enter a natural language command (or 'exit' to stop): i want to use whatsapp for linux can you install it

Predicted Bash Command: sudo snap install whatsapp-for-linux

Enter a natural language command (or 'exit' to stop): i want to use whatsapp can you install it

Predicted Bash Command: sudo snap install whatsapp

**Analysis:**

This model predicted as much we expected. This is a good model. But needs to improved

**Pros:**

* It understands variations in the commands which is Install, Delete, Update
* It predicts “**-**” in android studio and sublime text and predicts only **code** for vs code
* Can ask in any variation for the management tasks
* It recognizes the app names

**Cons:**

* It lags for command with apt and apt-get package manager
* It predicts wrong in the place of chrome and also for python which predicts python only instead of python3
* Words needs to be describe clearly for all the words in the RHS like whatsapp for linux, teams for linux

Needs to be improved somehow.

***Analysis-2***

**Learning-rate:** 5e-5

**Batch-size:** 8

**Epoch:** 10

**Time-taken:** 2hrs

First command with snap, then apt and followed by apt-get is ordered in the dataset.

Output:

Enter a natural language command (or 'exit' to stop): i want to install vim

Predicted Bash Command: sudo snap install vim

Enter a natural language command (or 'exit' to stop): ho do i download and install android studio

Predicted Bash Command: sudo snap install android-studio

Enter a natural language command (or 'exit' to stop): i want to update expressvpn

Predicted Bash Command: sudo apt-get upgrade expressvpn

Enter a natural language command (or 'exit' to stop): i want to update android studio

Predicted Bash Command: sudo snap refresh android-studio

Enter a natural language command (or 'exit' to stop): i want to update vim

Predicted Bash Command: sudo snap refresh vim

Enter a natural language command (or 'exit' to stop): how do i delete python

Predicted Bash Command: sudo snap remove python3

Enter a natural language command (or 'exit' to stop): i want to install python

Predicted Bash Command: sudo snap install python3

Enter a natural language command (or 'exit' to stop): i want to install google chrome

Predicted Bash Command: sudo snap install google-chrome

Enter a natural language command (or 'exit' to stop): what is the command to chrome

Predicted Bash Command: sudo snap install chrome

Enter a natural language command (or 'exit' to stop): i want to install sublime text

Predicted Bash Command: sudo snap install sublime-text

Enter a natural language command (or 'exit' to stop): get vs code into my system

Predicted Bash Command: sudo snap install code

Enter a natural language command (or 'exit' to stop): i want to install protonvpn

Predicted Bash Command: sudo apt install protonvpn-cli

Enter a natural language command (or 'exit' to stop): how do i install java

Predicted Bash Command: sudo snap install java

Enter a natural language command (or 'exit' to stop): i need microsoft teams installed on my computer

Predicted Bash Command: sudo snap install teams-for-linux

Enter a natural language command (or 'exit' to stop): i want to use whatsapp for linux can you install it

Predicted Bash Command: sudo snap install whatsapp-for-linux

Enter a natural language command (or 'exit' to stop): i want to use whatsapp can you install it

Predicted Bash Command: sudo snap install whatsapp

**Analysis:**

This model predicts better outcome the previous one.

**Pros:**

* It understands variations in the commands which is Install, Delete, Update
* It predicts “**-**” in android studio and sublime text and predicts only **code** for vs code
* Can ask in any variation for the management tasks
* It recognizes the app names
* It converts to apt-get in most of the cases and apt in some cases but it is a mismatched one
* It predicts python3 for python which is better than previos model and for teams

**Cons:**

* It lags for command with apt and apt-get package manager
* Words needs to be describe clearly for all the words in the RHS like whatsapp for linux, teams for linux

Surely this model is better than the previos model is achieves all the pros of the previous analysis 1 model and also lags at some of the points

***Analysis-3***

**Learning-rate:** 5e-5

**Batch-size:** 8

**Epoch:** 20

**Time-taken:** 5hrs

Points to rectified:

Notepad plus plus

Whatsapp for linux

Signal desktop

Brave,firefox,opera,chrome – add browser

Apt get