CTP PROJECT

CONTROL THE VIRUS

MEET OUR TEAM

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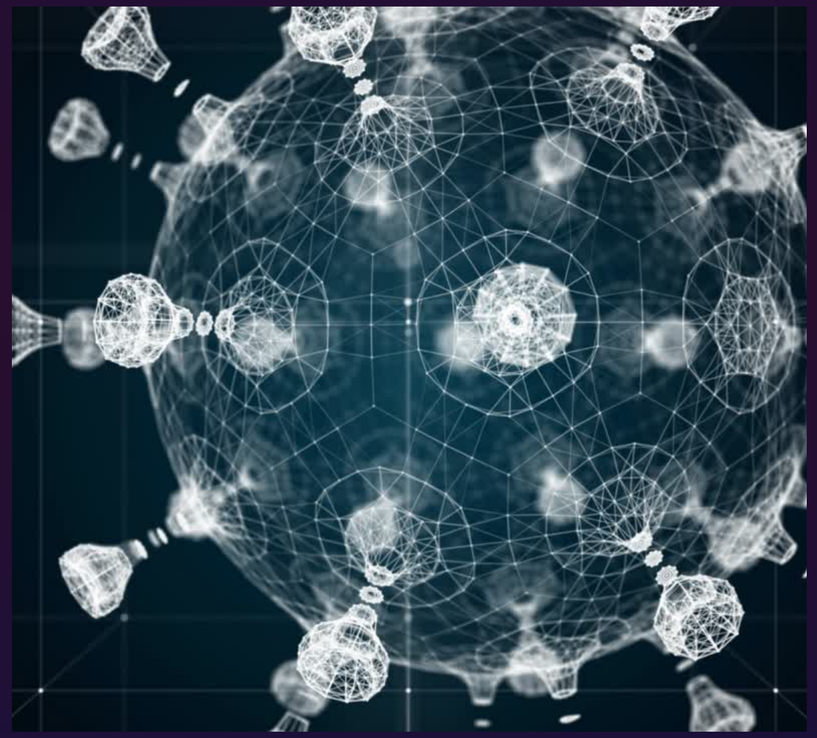
OUR OBJECTIVE

To control the virus outbreak in a village, provided the resources are limited. Thereby preventing a catastrophic epidemic.



OBJECTIVE

FUNCTIONS

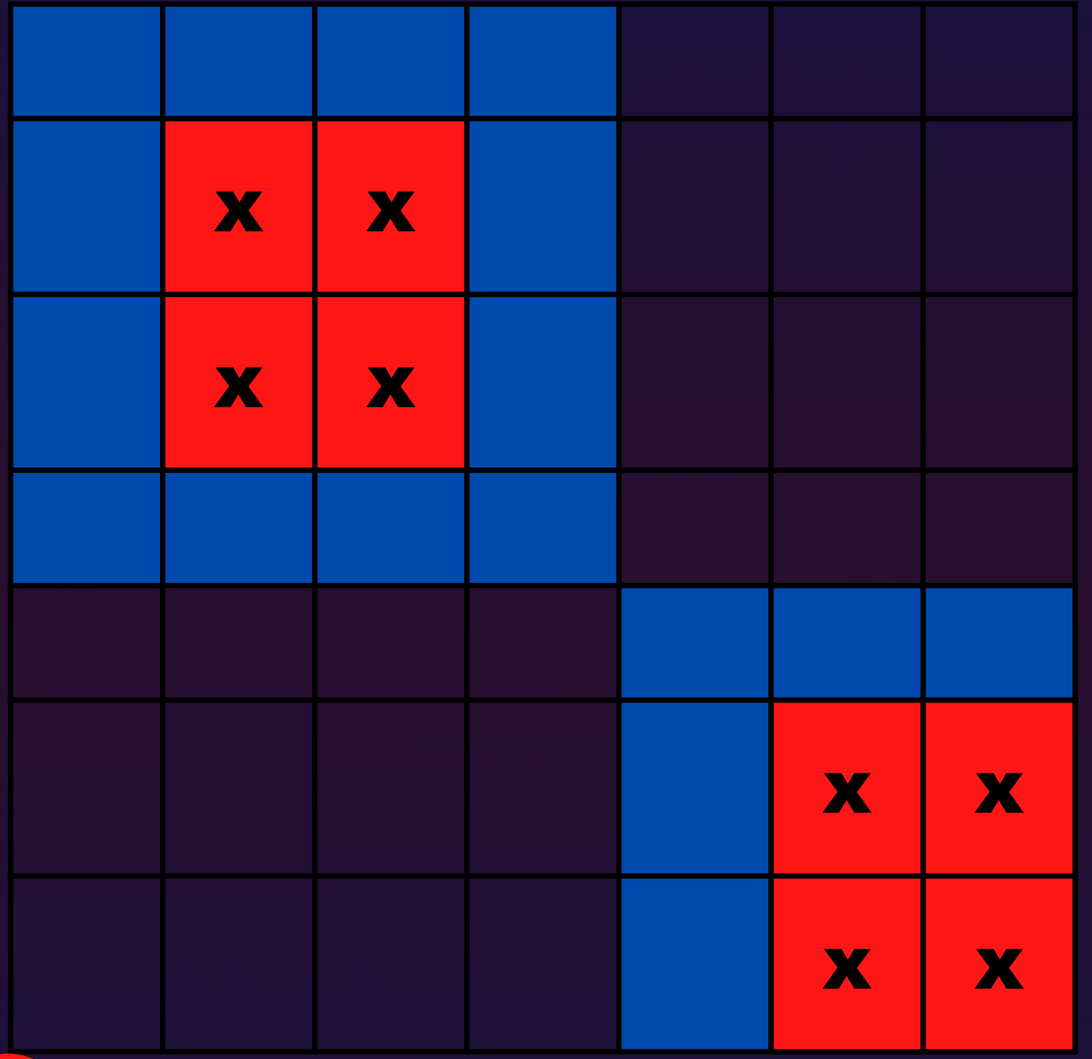
FUNCTION WALL

This function undertakes the task of quarantining the cluster which could affect the maximum number of houses.
After the process, function overnight is beckoned.

FUNCTION OVERNIGHT

This function is responsible for spreading the virus from the affected houses to the neighbouring ones overnight.
Once this task has been accomplished, function wall is called again and this goes on recursively till all the affected houses are quarantined.

VISION

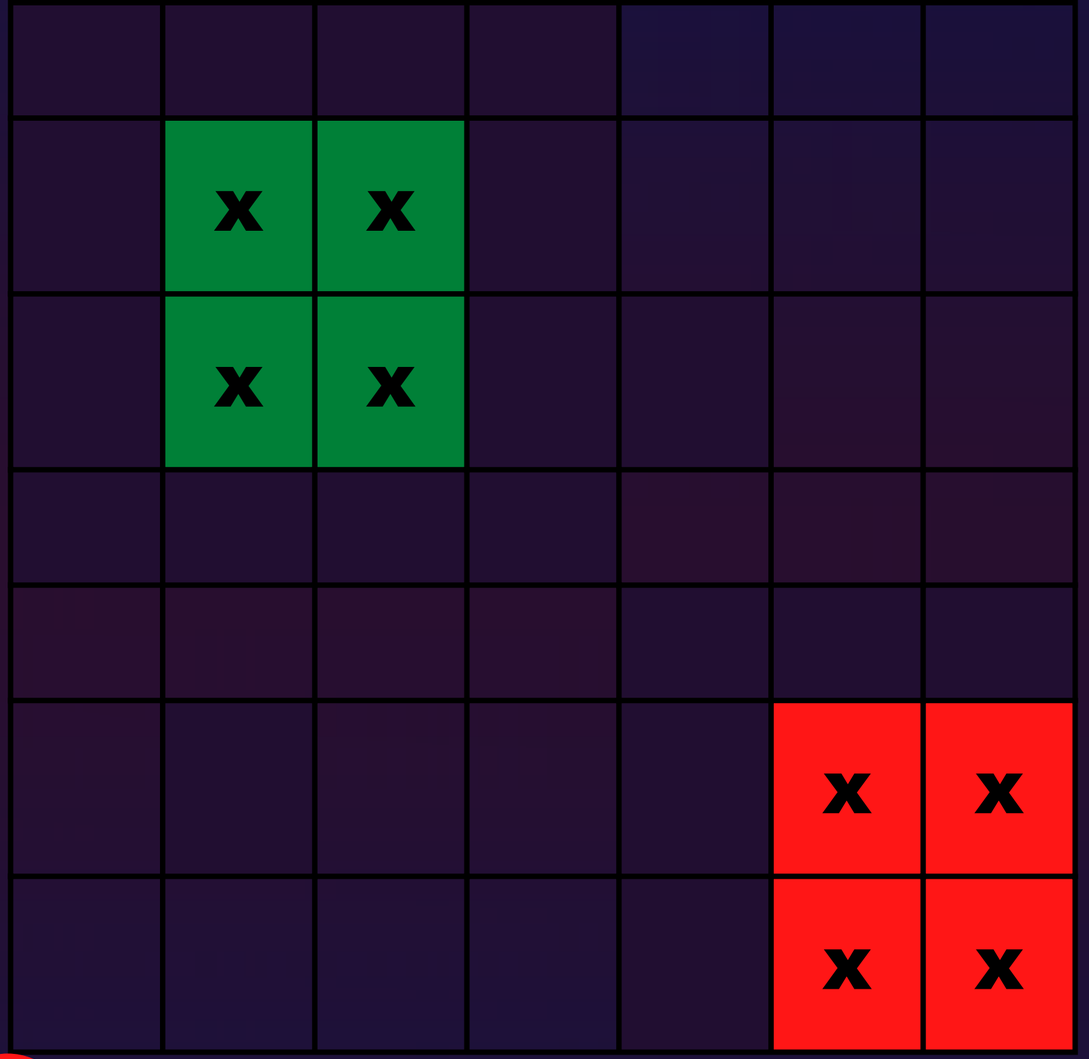


It is clearly visible that the cluster at the top left will affect 10 houses whereas the cluster at the bottom right will affect only 5 houses.

- Represents the houses which have been affected by the virus

-Represents the houses which will be affected by the virus

VISION

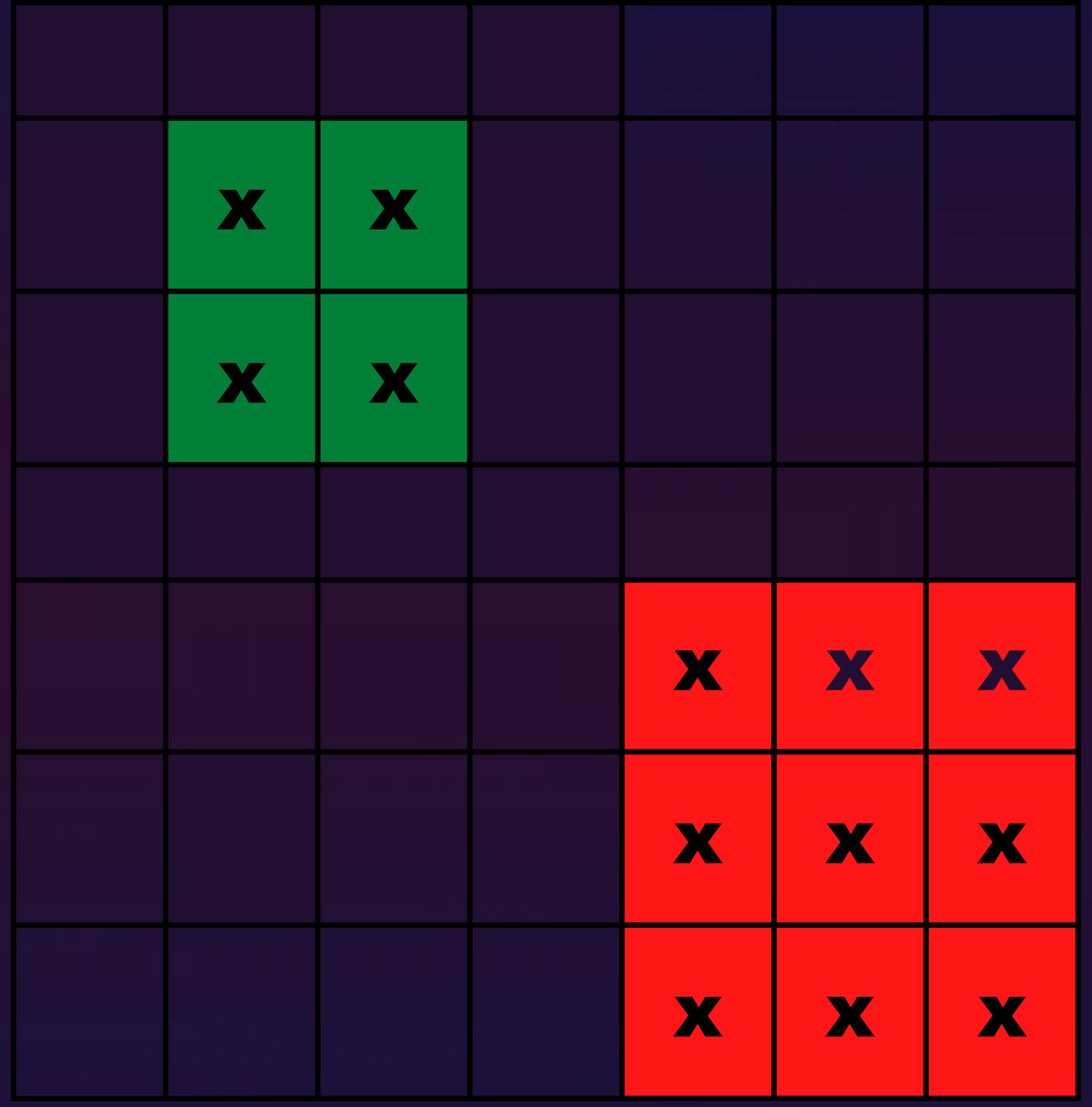


Here the wall function quarantines the top left block and calls the overnight function.

- Represents the houses which have been affected by the virus

-Represents the quarantined houses

VISION



Here the overnight function spreads the virus in all directions from the affected houses which could not be qurantined.

- Represents the houses which have been affected by the virus

-Represents the quarantined houses

VISION

Clearly since there is only one cluster left, we quarantine that cluster and the village has been saved.

Total houses saved: 36
Total house affected: 13

- Represents the houses which have been affected by the virus

-Represents the quarantined houses

CONSTRAINTS

- The virus is always a rectangular block
- There will never be a situation of a tie.


THANK
YOU