# Project Readme Template

Version 1 9/11/24

A single copy of this template should be filled out and submitted with each project submission, regardless of the number of students on the team. It should have the name readme_"teamname"

Also change the title of this template to "Project x Readme Team xxx"

<table>
<tr><td>1</td><td>Team Name: Kogge's Kid</td></tr>
<tr><td>2</td><td>Team members names and netids: mdunn25</td></tr>
<tr><td>3</td><td>Overall project attempted, with sub-projects: NTM Trace</td></tr>
<tr><td>4</td><td>Overall success of the project: Success</td></tr>
<tr><td>5</td><td>Approximately total time (in hours) to complete: 5 hours</td></tr>
<tr><td>6</td><td>Link to github repository:https://github.com/mpdunn05/Project1-TOC/tree/main</td></tr>
<tr><td>7</td><td>List of included files (if you have many files of a certain type, such as test files of different sizes, list just the folder): (Add more rows as necessary). Add more rows as necessary.
<table>
<tr><td>File/folder Name</td><td>File Contents and Use</td></tr>
<tr><td colspan="2">Code Files</td></tr>
<tr><td>src</td><td>ntm_tracer_Kogges_Kid.py</td></tr>
<tr><td colspan="2">Test Files</td></tr>
<tr><td>input</td><td>aplus.csv<br>composite.csv<br>palindrome.csv</td></tr>
<tr><td colspan="2">Output Files</td></tr>
<tr><td>n/a</td><td>Output_screenshots.pdf</td></tr>
<tr><td colspan="2">Plots (as needed)</td></tr>
<tr><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>8</td><td>Programming languages used, and associated libraries: Python</td></tr>
<tr><td>9</td><td>Key data structures (for each sub-project): I used lists of lists to represent configurations at each depth and dictionaries to store transitions.</td></tr>
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|---|---|
| 10 | General operation of code (for each subproject): **The NTM Trace repeatedly checks all possible configurations at each step while checking if it's accepting or rejecting. It looks up valid transitions for the current state and makes new configurations by writing symbols and moving the head.** |
| 11 | What test cases you used/added, why you used them, what did they tell you about the correctness of your code. **I used a_plus.csv to test the functioning of my code and once a_plus was constantly working I used Composite and palindrome for additional testing. I used Palandrome because it was easy for me to evaluate.** |
| 12 | How you managed the code development. **I managed the code development by building slowly. I did the print function last and worked on the main function first. I was using a_plus to test as I built the main function.** |
| 13 | Detailed discussion of results: **THe results show that the NTM Tracer correctly handles multiple diverse inputs which verify its correctness. The trace followed the path and printed each step and I verified the results by manually doing it myself.** |
| 14 | How team was organized. **I did all the work** |
| 15 | What you might do differently if you did the project again **I would've started the project earlier.** |
| 16 | Any additional material: |