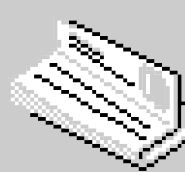
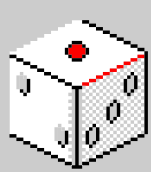
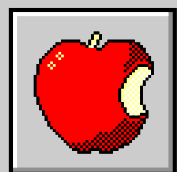


Term project
Presentation

Nublich



By Kin, IT, Mogoon



11:11PM

Collaboration

Approaches

- Work planning and work distribution

Advantages

- Siriraj medical students → Easy to communicate
- Past experience in coding

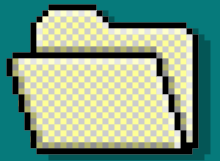
Challenges

- Simultaneous medical summative examinations → Less time to complete assignment
- Huge load of new coding tools and equipment → Takes time to understand thoroughly

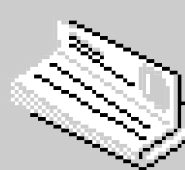
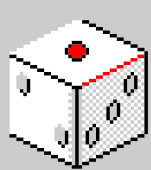
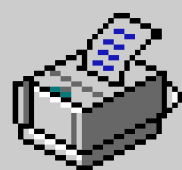
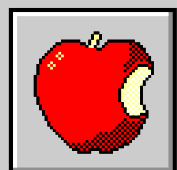
Solutions

- Shuffled working period
- Interest-based work distribution

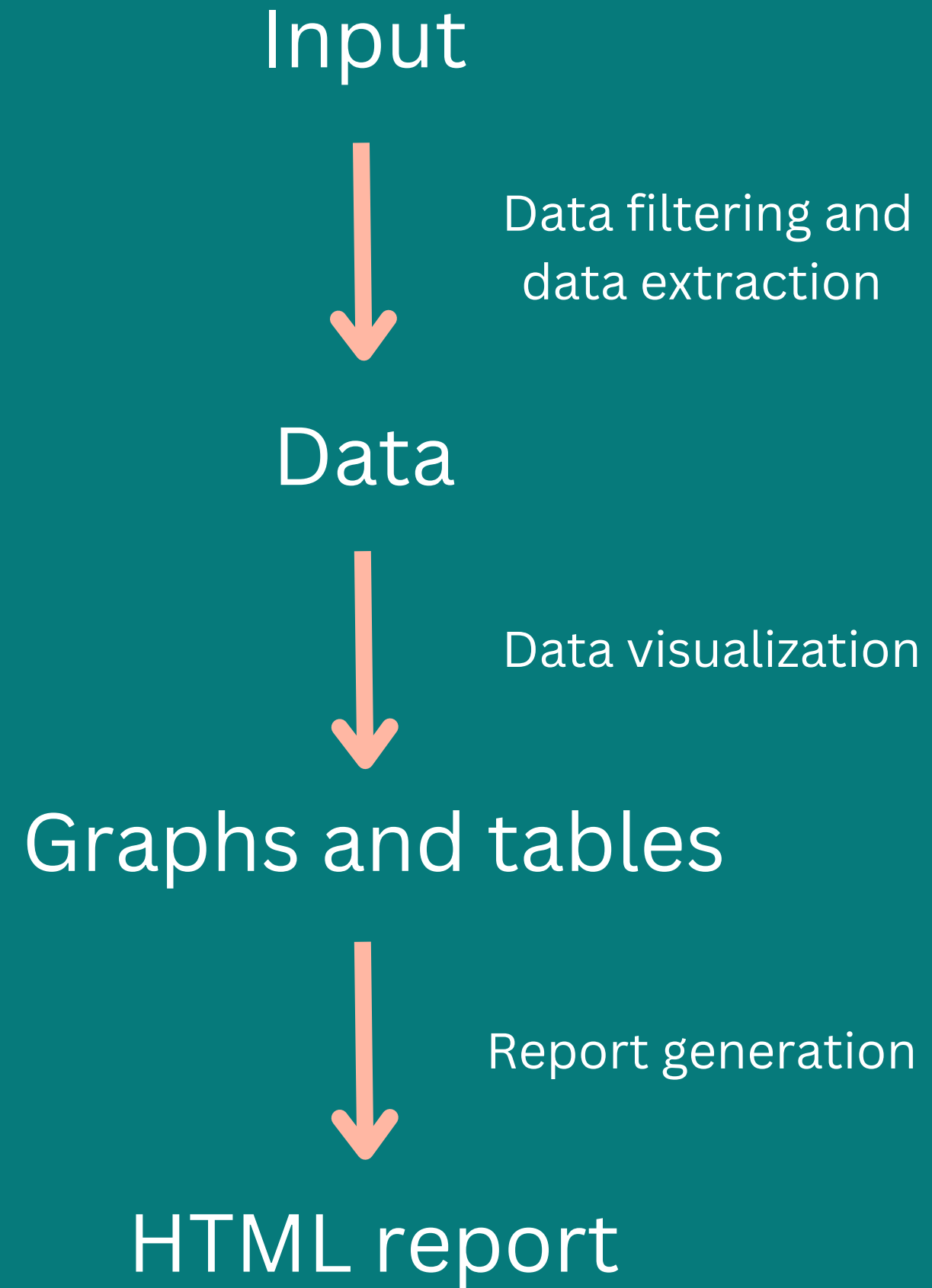
Project Timeline



Date	Task	Responsibility
30/11/2565	Data skimming	All
7/12/2565	Data extraction and Phred score interpretation	IT and Mogoon
14/12/2565	Basic sequence processing commands	Mogoon
	Start converting data and display onto other formats (HTML)	IT
21/12/2565	Basic data visualization	Kin
28/12/2565	Filters for specific values	Mogoon and IT
	More options for data visualization	Kin
30/12 - 8/1	Work merging, program testing and adding finishing touch	All
Kin's examination date: 28/11 and 13/12		
Mogoon and IT's examination date: 2/12 and 23/12		
New year holiday on 30/12 to 8/1		



Program



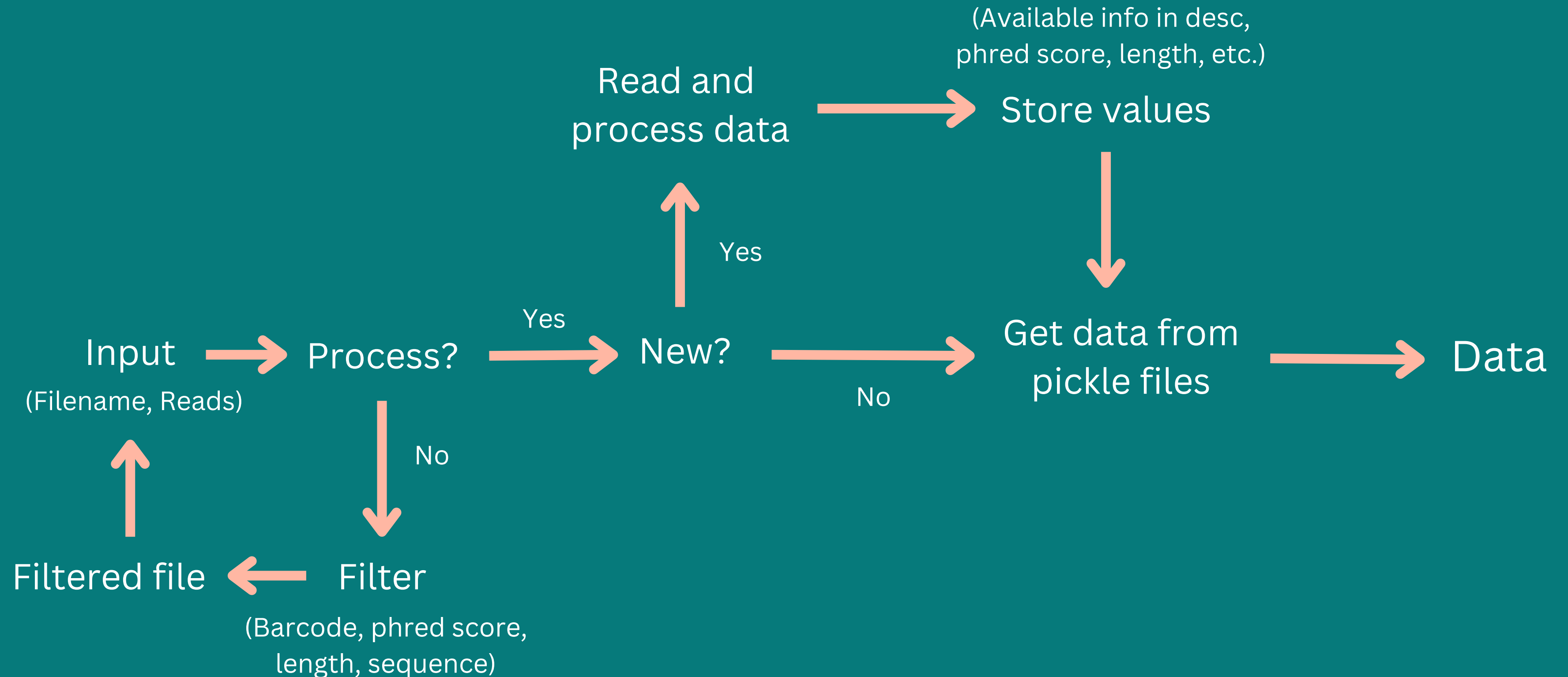
Program

1. Data filtering and data extraction

Input  Data

Program

1. Data filtering and data extraction



Data filtering and Data extraction

Parameters for all commands:

1. -f filename
2. -r max reads

Available commands:

Filter : Generate a new .gz file with reads that match specified parameters

1. filter_barcode
2. filter_seq (-s sequence)
3. filter_score (--min, --max, -v)
4. filter_length (--min, --max, -v)

Get : Get specific information

1. count
2. getphredinfo
3. getlengthinfo
4. getallinfo

Report : Generate report

1. overview (-t columns) [Mini version]
2. get_report [HTML version]

Data visualization

Data : pandas dataframe



data preparation



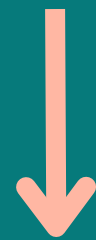
Graph & Table

Data visualization

Data : pandas dataframe



extract required data



numpy module

plotting array

layout

plotly module



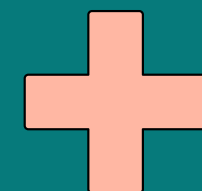
Cool Graph & Table & Pie chart

Report generation

Content
Ex. Graph, Table

Translate into
HTML format

<div> tag with id



Template

Modules:

- Dominate
- Plotly

Full HTML

