WebGraphviz is Graphviz in the Browser

Enter your graphviz data into the Text Area:

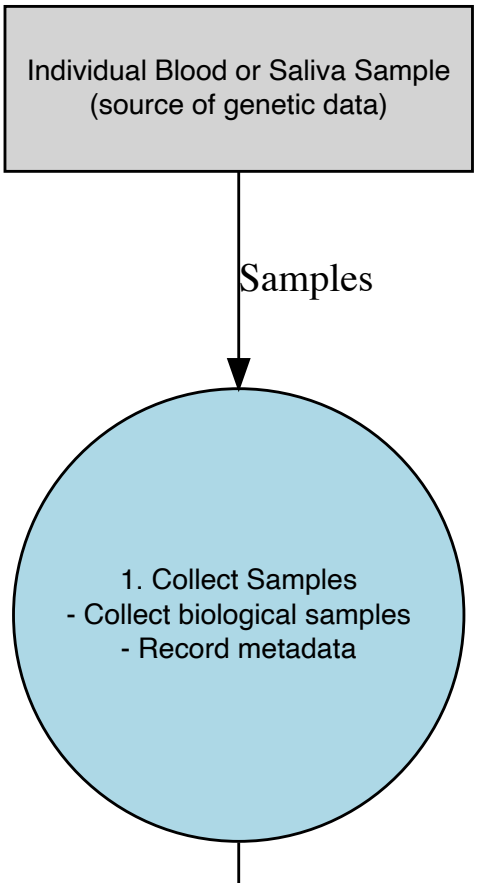
(Your Graphviz data is private and never harvested)

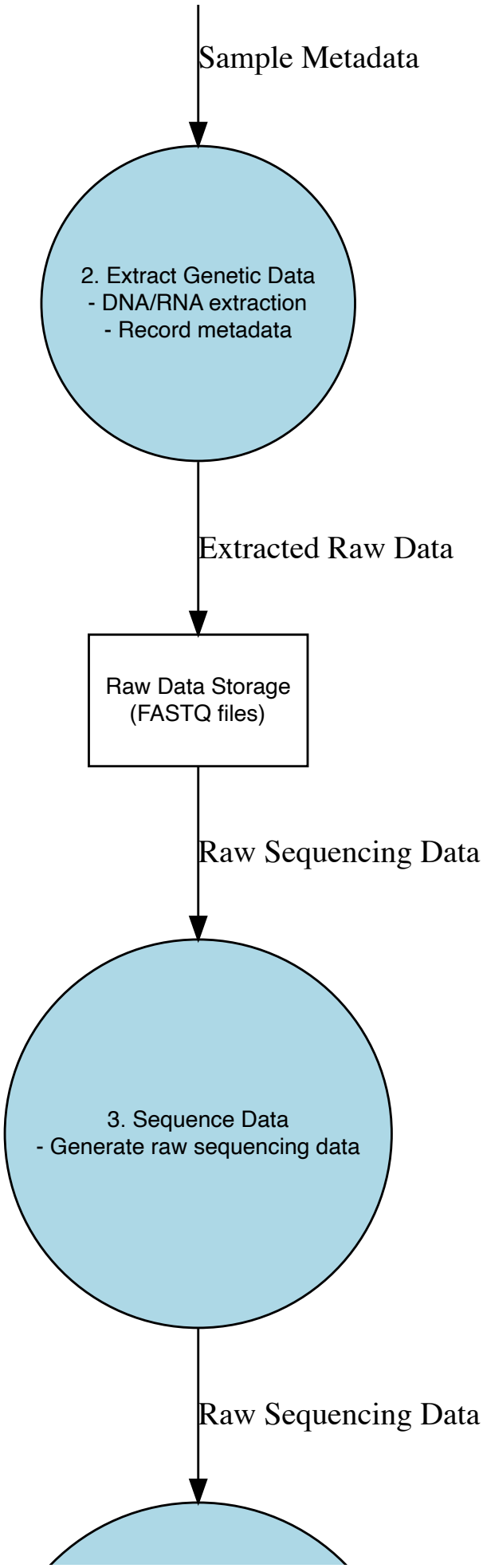
Sample 1 | Sample 2 | Sample 3 | Sample 4 | Sample 5

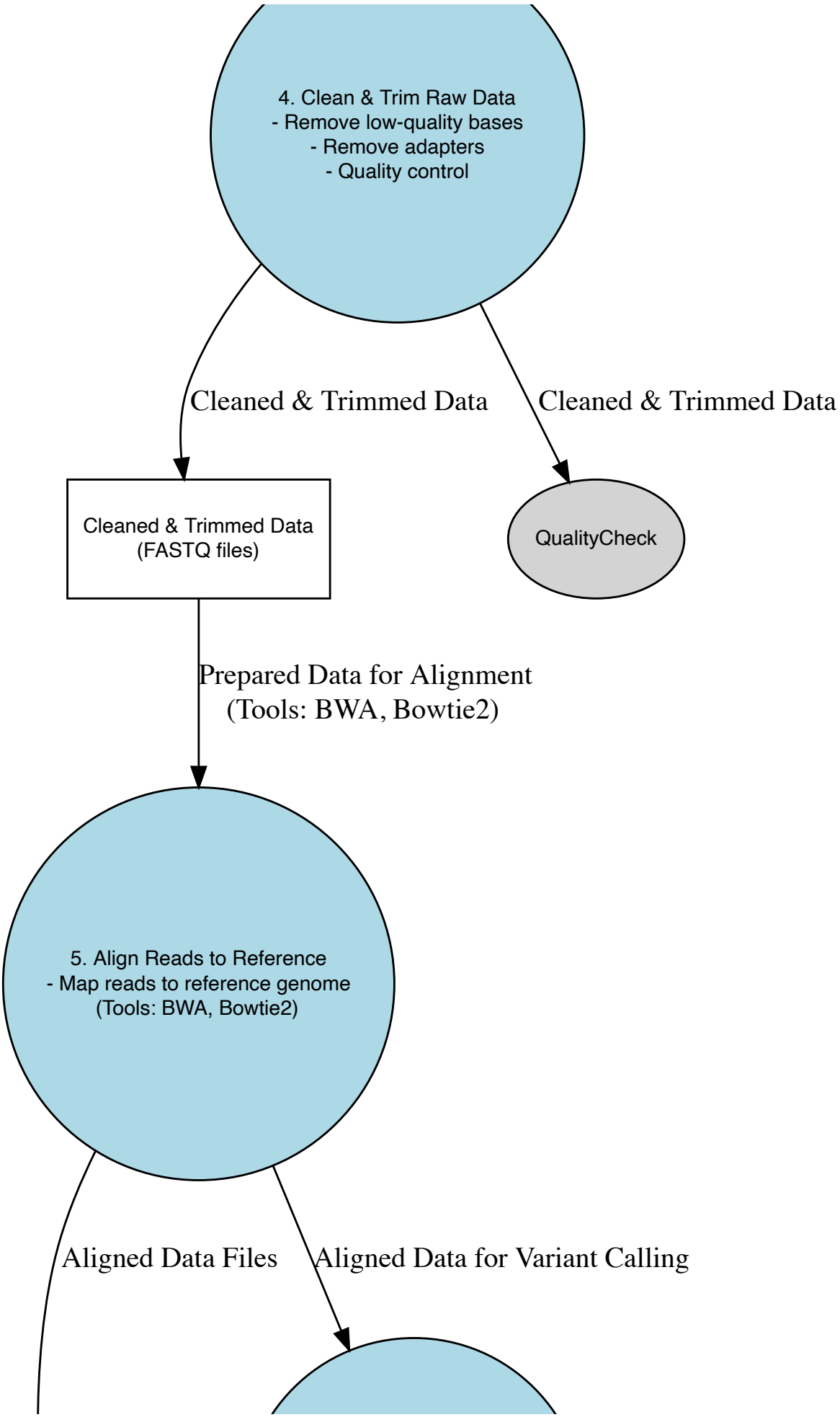
```
  // Filtering
  VariantFiltering -> VariantMatching [label="Filtered Variants"];

  // Matching variants with database
  VariantMatching -> MatchedResults [label="Matched Results"];

  // Results storage & review
  MatchedResults -> ResultsCompilation [label="Results Data"];

  // Review process
  ResultsCompilation -> DataReview [label="Results"];

  // External reference database
  ReferenceDatabase [label="Reference Database", shape=ellipse, fillcolor=lightgray, style=filled];
  ReferenceDatabase -> VariantMatching [label="Database Data"];

  // Final output to researcher
  DataReview -> Researcher [label="Analysis & Interpretation"];

}
```

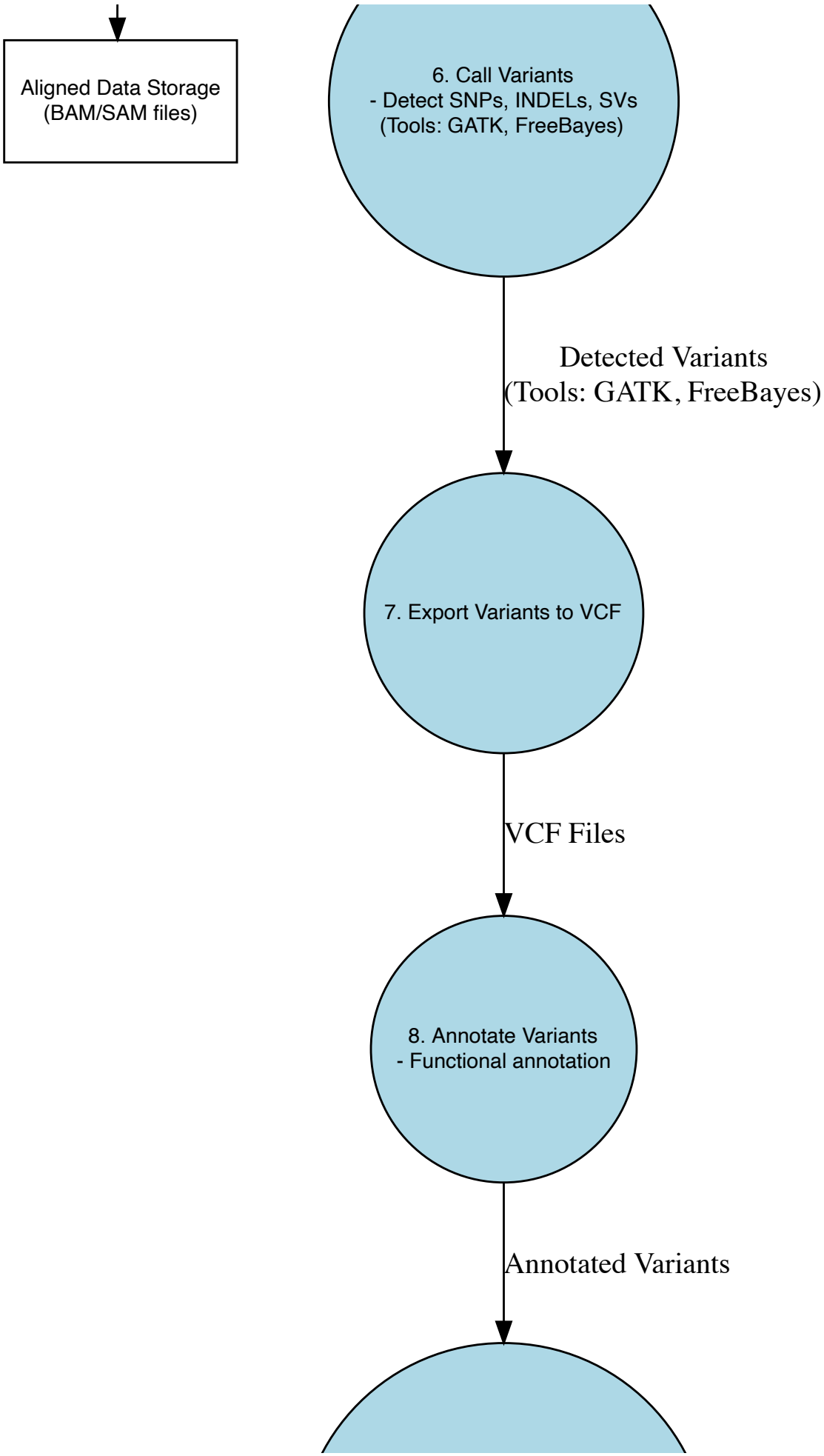
Generate Graph!

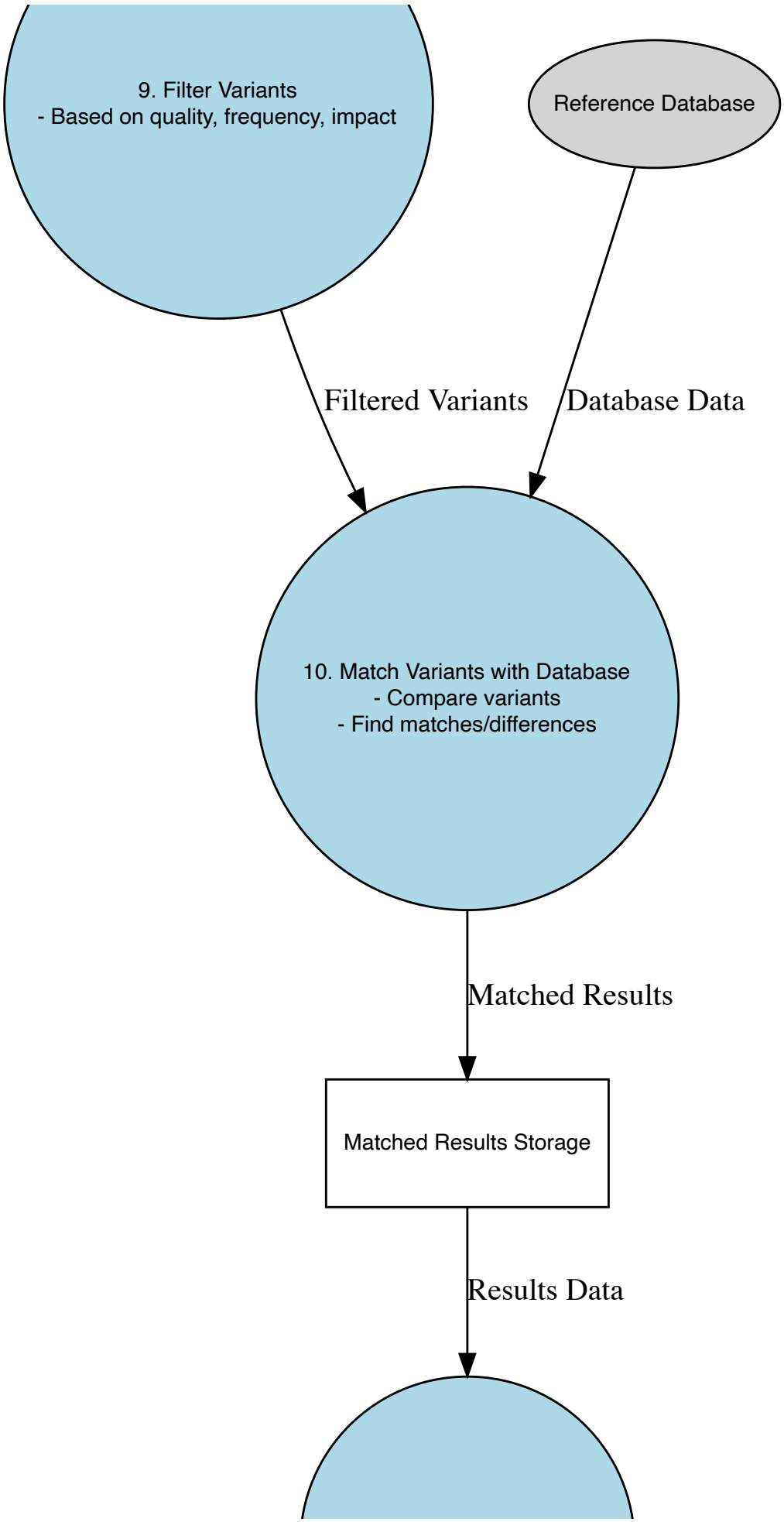
Warning: using box for unknown shape cylinder

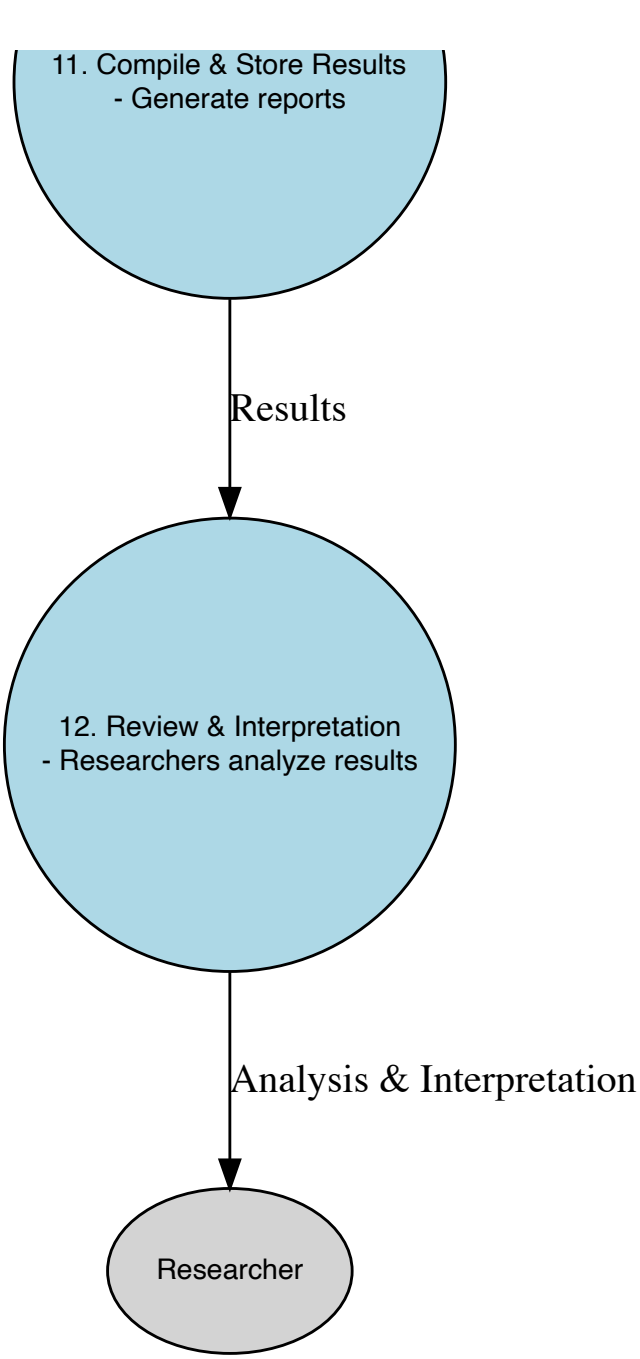



Sample Metadata
2. Extract Genetic Data
- DNA/RNA extraction
- Record metadata
Extracted Raw Data
Raw Data Storage
(FASTQ files)
Raw Sequencing Data
3. Sequence Data
- Generate raw sequencing data
Raw Sequencing Data


4. Clean & Trim Raw Data
- Remove low-quality bases
- Remove adapters
- Quality control
Cleaned & Trimmed Data
Cleaned & Trimmed Data
Cleaned & Trimmed Data
(FASTQ files)
QualityCheck
Prepared Data for Alignment
(Tools: BWA, Bowtie2)
5. Align Reads to Reference
- Map reads to reference genome
(Tools: BWA, Bowtie2)
Aligned Data Files
Aligned Data for Variant Calling


Aligned Data Storage
(BAM/SAM files)
6. Call Variants
- Detect SNPs, INDELs, SVs
(Tools: GATK, FreeBayes)
Detected Variants
(Tools: GATK, FreeBayes)
7. Export Variants to VCF
VCF Files
8. Annotate Variants
- Functional annotation
Annotated Variants


9. Filter Variants
- Based on quality, frequency, impact
Reference Database
Filtered Variants
Database Data
10. Match Variants with Database
- Compare variants
- Find matches/differences
Matched Results
Matched Results Storage
Results Data


11. Compile & Store Results
- Generate reports
Results
12. Review & Interpretation
- Researchers analyze results
Analysis & Interpretation
Researcher