INTRODUCTION

COVER LETTER

Dear professor /Sara El-Metwally,
Thank you for your time on checking our Mobile App Development Proposal.
We are FASTQC2 mobile app project team and we create software mobile.
In this proposal, you'll see information about FASTQC2 mobile app project, our services and pricing.
We look forward to talking with you.
Sincerely,
Gamela Hussien
Project Director

TEAM OVWEVIEW

ABOUT TEAM

We are FASTQC2 mobile app project team and we create android mobile app.

ABOUT VISION

Our vision is to produce high-quality program that perform analysis on biological data in FASTQ format.

ABOUT MISSION

Our mission is to make our clients available to use mobile to perform analysis on biological data.

OUR TEAM

Jihad Shehata
UI designer
Back end developer
Wessam Ahmed
Git_Hub manager
Back end developer
Sabah Gomaa
Flutter developer

Micheal Emad
Graphic designer and video Editor
Gamela Hussien
Back end developer

DEVELOPMENT PROCESS

We normally need 6 weeks to finish mobile app project completely.

MOBILE APP DEVELOPMENT PROCESS

1. Meeting and formally offering the proposal.
2. Research and data analysis.
3. Improve visual UI design.
4. Produce the backend technology of the app.
5. Test app.
6. Perform further testing with the professor.
7.Lanuch APP and make it available to use.

PROJECT DETAILS

PROJECT DESCRIBTION

**This project is a mobile application for FASTQC tool which is used to perform analysis on biological data in FASTQ files, CASAVA FASTQ files*,COLORSPASE FASTQ , GZIP compressed FASTQ, SAM,BAM
and SAM/BAM Mapped only (normally used for COLORSPACE data).
FASTQC tool consists of 11 analysis modules:**

**1)Basic Statistics:
which gives file name, file type, encoding(ASCII encoding of quality values), total sequences, filtered sequences, sequence length and %GC (overall percentage of guanine and cytosine bases)**

**2)Per Base Sequence Quality
shows an overview of the range of quality values across all bases at each
position in the FASTQ file.**

**3)Per Sequence Quality Scores
allows to see if a subset of your sequences
have universally low quality values.**

**4)Per Base Sequence Content
plots out the proportion of each base position in a file for which each of the four normal DNA bases has been called.**

**5)Per Base GC Content
Plots out the GC content of each base position in a file.**

**6)Per sequence GC Content
measures the GC content across the whole length
of each sequence in a file.**

**7) Per Base N Content
If a sequencer is unable to make a base call with sufficient**

This module plots out the percentage of base calls at each position for which an N was called.

8)Sequence Length Distribution
Some high throughput sequencers generate sequence fragments of uniform length, but others can contain reads of wildly varying lengths. Even within uniform length libraries some pipelines will trim sequences to remove poor quality base calls from the end.
This module generates a graph showing the distribution of fragment sizes in the file.

9)Duplicate Sequences
This module counts the degree of duplication for every sequence in the set and creates a plot showing the relative number of sequences with different degrees of duplication.

10)Overrepresented Sequences
This module lists all of the sequence which make up more than 0.1% of the total. To conserve memory only sequences which appear in the first 200,000 sequences are tracked to the end of the file. It is therefore possible that a sequence which is overrepresented but doesn't appear at the start of the file for some reason could be missed by this module.

11)Overrepresented KMERS
This module counts the enrichment of every 5-mer within the sequence library.

The project goal is make mobile app provides same FASTQC analysis on biological data in FASTQ format with ASCII encoding 33 and is actually filtered. This program consists of the same 11 analysis modules.
Source code is implemented by using python programming language.

Source:
https://dnacore.missouri.edu/PDF/FastQC_Manual.pdf

	Offered?	Amount
Market Research and Data Analysis		
iOS & Android App Development	✓	free (currently only android app)
Software Development	✓	free
Web Development		
Content Writing		
User Experience and User Interface Design		
Photo and Video Marketing		
Quality Assurance Testing	✓	free
Mobile App Maintenance (Yearly)	✓	free

TERMS & CONDITIONS

V. AMENDMENT

This proposal can only be changed or modification can be done by only team members.

VI. GOVERNING LAW

This proposal shall be governed under the laws of Egypt.