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# Data Structures Project Proposal: UBIT

Submission date: 13-Nov-18

Submission By: A group of Section C

Submit to: Miss Nida Pervaiz, [nida.pervaiz@nu.edu](mailto:nida.pervaiz@nu.edu).pk

**Project Name:**

UBIT (The Ultimate Biological Information Tool)

**Project Purpose/Goal(s):**

* Perform Global Alignment
* Perform Local Alignment
* Transcribe complementary DNA
* Transcribe mRNA sequence from complementary DNA
* Finally generate the Protein Sequence
* Calculate the Hamming Distance
* Devise the possible k-mers from the given DNA Sequence
* % Mass composition of nucleotides in DNA
* % Mass composition of Amino Acid in generated Protein Sequence
* Create a Neural Network to compare and the closest matching Protein Sequence with existing database
* Data Base from PDB ftp://ftp.wwpdb.org/pub/pdb/derived\_data/pdb\_seqres.txt
* All the above presented in Enhanced Graphical Interface

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| **Stakeholder Name** | **Stakeholder’s Unique IDs** |
| Abu Bakr | 17k-3856 |
| Bilal Akmal | 17k-3669 |
| Masood | 17k-3680 |
| Wajeeh Misbah Khan | 17k-3673 |
| Mohsin Ali | 17k-3634 |

**Success Factors:**

We will work hard and try to fulfill all the characteristics mentioned above precise and efficiently.

Risk Factors:

The Biggest Risk is that the time might not be sufficient for this project /\*(30 Saal ka waqt to dena tha rebaba)\*/, on safe side I am picking a team of 5 members to complete my commitments