**Capstone Project 2: Project Ideas**

1. **Idea :** Genetic Disorder Prediction:

As per reports, because of the unsustainable increase in population and a lack of access to adequate health care, food, and shelter, the number of genetic disorder ailments have increased.

Hereditary illnesses are becoming more common due to a lack of understanding about the need for genetic testing.

Often kids die because of these illnesses, thus genetic testing during pregnancy is critical.

**Dataset :** <https://www.kaggle.com/aryarishabh/of-genomes-and-genetics-hackerearth-ml-challenge>

45 columns

22k rows

HISTORY

Context

* Since the dawn of human life on the face of the earth, the global population has been booming. The population was estimated to be 1 billion people in the year 1800. The figure had increased to a new high of 6 billion humans by the turn of the twentieth century. Day in and day out, 227,000 people are being added to the world; it is projected that by the end of the 21st century, the world's population may exceed 11 billion.
* As per reports, as a consequence of the unsustainable increase in population and a lack of access to adequate health care, food, and shelter, the number of genetic disorder ailments have increased. Hereditary illnesses are becoming more common due to a lack of understanding about the need for genetic testing. Often kids die as a result of these illnesses, thus genetic testing during pregnancy is critical.

Most colons carry the characteristic of their own name. Let me explain some columns.

* Genes in mother's side:

Represent a gene defect in a patient's mother

* Inherited from father:

Represent a gene defect in a patient's father

* Paternal gene:

Represent a gene defect in a patient's paternal side of the family

* Respiratory Rate(breaths/min):

Represents a patient's respiratory breathing rate

* Heart Rate (rates/min):

Represents a patient's heart rate

* Parental Consent:

Represents whether a patient's parents approved the treatment plan

* Follow-up:

Represents a patient's level of risk (how intense their condition is)

* Folic acid details (peri-conceptional):

Represents the periconceptional folic acid supplementation details of a patient

* H/O serious maternal illness:

Represents an unexpected outcome of labor and delivery that resulted in significant short or long term consequences to a patient's mother

* H/O radiation exposure (x-ray):

Represents whether a patient has any radiation exposure history

* H/O substance abuse:

Represents whether a parent has a history of drug addiction

* Assisted conception:

Represents the type of treatment used for infertility

* Birth defects:

Represents whether a patient has birth defects

* WE DON'T NEED TEST AND SYMPTOM COLUMNS BECAUSE THERE IS NO ENOUGH INFORMATION

linkcode

TARGET

* Genetic Disorder
* Disorder Subclass