

TableName	Attribute (datatype)	Constraints
INDIVIDUAL	ClientID (number)	Primary Key
	BDATE (date)	Date
	SEX (varchar2)	Only 'Female', 'Male'
		Check that the data entered
	PNUMBER (varchar2)	is domestic US format
	STREET (varchar2)	Max length of 20
	STATE (varchar2)	Must be one of the 50 abbreviated states
	CITY (varchar2)	Max length of 20
	ZIP (number)	00000 - 99999
		Foreign Key to
	GenomeID (number)	GENOME.GenomeID

TESTDT	TESTDT (date)	Primary Key
		Primary Key and Foreign Key to INDIVIDUAL.ClientID
ETHNICITY	Ethnicity (varchar2)	Primary Key
		Primary Key and Foreign Key to INDIVIDUAL.ClientID
OCCUPATION	Occupation (varchar2)	Primary Key, Max length of 20
		Primary Key and Foreign Key to INDIVIDUAL.ClientID

GENOME	GenomeID (number)	Primary Key
	Accuracy (float)	Accuracy up to 9 digits after decimal point (1,9)

	MarkerID (number)	Primary Key
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MARKERS	Position (number)	< 9,999,999,999
	Type (varchar2)	Max length of 20
	GenomeID (number)	Foreign Key to GENOME.GenomeID

GENE	GeneID (number)	Primary Key
	Genotype (varchar2)	Only in 'Heterozygous', 'Homozygous'
	Phenotype (varchar2)	Max length of 40
	MarkerID (number)	Foreign Key to MARKER.MarkerID

CONTAINS	AlterationID (number)	Primary Key and Foreign Key to ALTERATION.AlterationID
	GeneID (number)	Primary Key and Foreign Key to GENE.GeneID

ALTERATION	AlterationID (number)	Primary Key
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EPIGENETICS	EpigeneticID (number)	Primary Key
	Expression (varchar2)	Can be 'Low', 'Medium', 'High'
	Type (varchar2)	Can be 'Methylation', 'Ubiquitination', 'Phosphorylation', 'Acetylation'
	AlterationID (number)	Primary Key and the Foreign Key to ALTERATION.AlterationID

MUTATION	Change (varchar2)	Can be 'A', 'G', 'U', 'C'
	MutationID (number)	Primary Key and Partial Key
	Type (varchar2)	Can be 'Substitution', 'Insertion', 'Deletion'
	Original (varchar2)	Can be 'A', 'G', 'U', 'C'
	AlterationID (number)	Primary Key and the Foreign Key to ALTERATION.AlterationID
	CodonID (number)	Foreign Key to CODON.CodonID

CODON	CodonID (number)	Primary Key
	Original (varchar2)	Max length of 3
	NewCodon (varchar2)	Max length of 3
	AminoAcid (varchar2)	Max length of 10