MySQL Index Example

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show create table t\_index1;

CREATE TABLE t\_index1 (

i tinyint(3) unsigned NOT NULL,

j tinyint(3) unsigned NOT NULL,

k tinyint(3) unsigned NOT NULL,

c1 char(8) NOT NULL,

c2 char(8) DEFAULT NULL,

c3 char(8) DEFAULT NULL,

PRIMARY KEY (i,j,k),

UNIQUE KEY c1 (c1),

UNIQUE KEY c2 (c2),

KEY c3 (c3)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

show create table t\_index2;

CREATE TABLE t\_index2 (

id int(10) unsigned NOT NULL AUTO\_INCREMENT,

i tinyint(3) unsigned NOT NULL,

j tinyint(3) unsigned NOT NULL,

k tinyint(3) unsigned NOT NULL,

c1 char(8) DEFAULT NULL,

PRIMARY KEY (id),

KEY i (i,j,k),

CONSTRAINT t\_index2\_ibfk\_1 FOREIGN KEY (i, j, k) REFERENCES t\_index1 (i, j, k) ON DELETE CASCADE ON UPDATE CASCADE;

desc t\_index1;

Field |Type |Null |Key |Default |Extra

------|--------------------|-----|----|--------|------

i |tinyint(3) unsigned |NO |PRI | |

j |tinyint(3) unsigned |NO |PRI | |

k |tinyint(3) unsigned |NO |PRI | |

c1 |char(8) |NO |UNI | |

c2 |char(8) |YES |UNI | |

c3 |char(8) |YES |MUL | |

desc t\_index2;

Field |Type |Null |Key |Default |Extra

------|--------------------|-----|----|--------|---------------

id |int(10) unsigned |NO |PRI | |auto\_increment

i |tinyint(3) unsigned |NO |MUL | |

j |tinyint(3) unsigned |NO | | |

k |tinyint(3) unsigned |NO | | |

c1 |char(8) |YES | | |

table\_name |column\_name |is\_nullable |index\_name |seq\_in\_index |constraint\_type |constraint\_name |reg\_table\_name |ref\_col\_name

-----------|------------|------------|-----------|-------------|----------------|----------------|---------------|------------

t\_index1 |i |NO |PRIMARY |1 |PRIMARY KEY |PRIMARY | |

t\_index1 |j |NO |PRIMARY |2 |PRIMARY KEY |PRIMARY | |

t\_index1 |k |NO |PRIMARY |3 |PRIMARY KEY |PRIMARY | |

t\_index1 |c1 |NO |c1 |1 |UNIQUE |c1 | |

t\_index1 |c2 |YES |c2 |1 |UNIQUE |c2 | |

t\_index1 |c3 |YES |c3 |1 | | | |

t\_index2 |id |NO |PRIMARY |1 |PRIMARY KEY |PRIMARY | |

t\_index2 |i |NO |i |1 |FOREIGN KEY |t\_index2\_ibfk\_1 |t\_index1 |i

t\_index2 |j |NO |i |2 |FOREIGN KEY |t\_index2\_ibfk\_1 |t\_index1 |j

t\_index2 |k |NO |i |3 |FOREIGN KEY |t\_index2\_ibfk\_1 |t\_index1 |k

t\_index2 |c1 |YES | | | | | |