largest possible prime ideals for which, R_{P_α} is a valuation domain for each $\alpha \in I$. Thus by the <u>family of valued primes defining a ring R of Krull type</u> we shall in future mean the family$\{P_\alpha\}$ consisting of the largest valued primes of R. We recall that

Definition 4. An integral domain R is called a Krull domain if

(1) every non zero non unit element of R is contained in only a finite number of minimal prime ideals of R

(2) R_P is a discrete rank one valuation ring for each minimal (non zero) prime ideal P of R

(3) $R = \cap R_P$ where P ranges over all the minimal prime ideals of R.

Comparing the Definitions 3 and 4, we infer that a Krull domain is a ring of Krull type with the difference that the defining family of prime ideals of a Krull domain consists only of minimal non zero prime ideals, and of course that R_P is a discrete for each P in the defining family. Similarly recalling Def. 3 of Chapter 2, we infer that a *GKD is also a ring of Krull type. Thus if $\lneqq$ denotes ," Form a special case of " then

Krull domains $\lneqq$ GKD's $\lneqq$ *GKD's $\lneqq$ Rings of Krull type.

The examples given or mentioned at the end of section 4 of this chapter ensure that the above is a chain of distinct classes of integral domains.

There may be many further generalizations of a ring of Krull type but we shall restrict our attention to essential domains and their special case to which we have given the name *-essential domains.