



SNS COLLEGE OF ENGINEERING



Kurumbapalayam(Po), Coimbatore – 641 107

Accredited by NAAC-UGC with 'A' Grade

Approved by AICTE, Recognized by UGC & Affiliated to Anna University, Chennai

Department of Information Technology

Course Name – IT8075 Software Project Management

IV Year / VII Semester

Unit 2 – Project Lifecycle and Effort Estimation

Topic 6- The Basics for Software Estimation



Answer following questions

you want to buy five magazines that cost \$1.95 each. When you go to buy them the cost is \$12.25. Is that right?

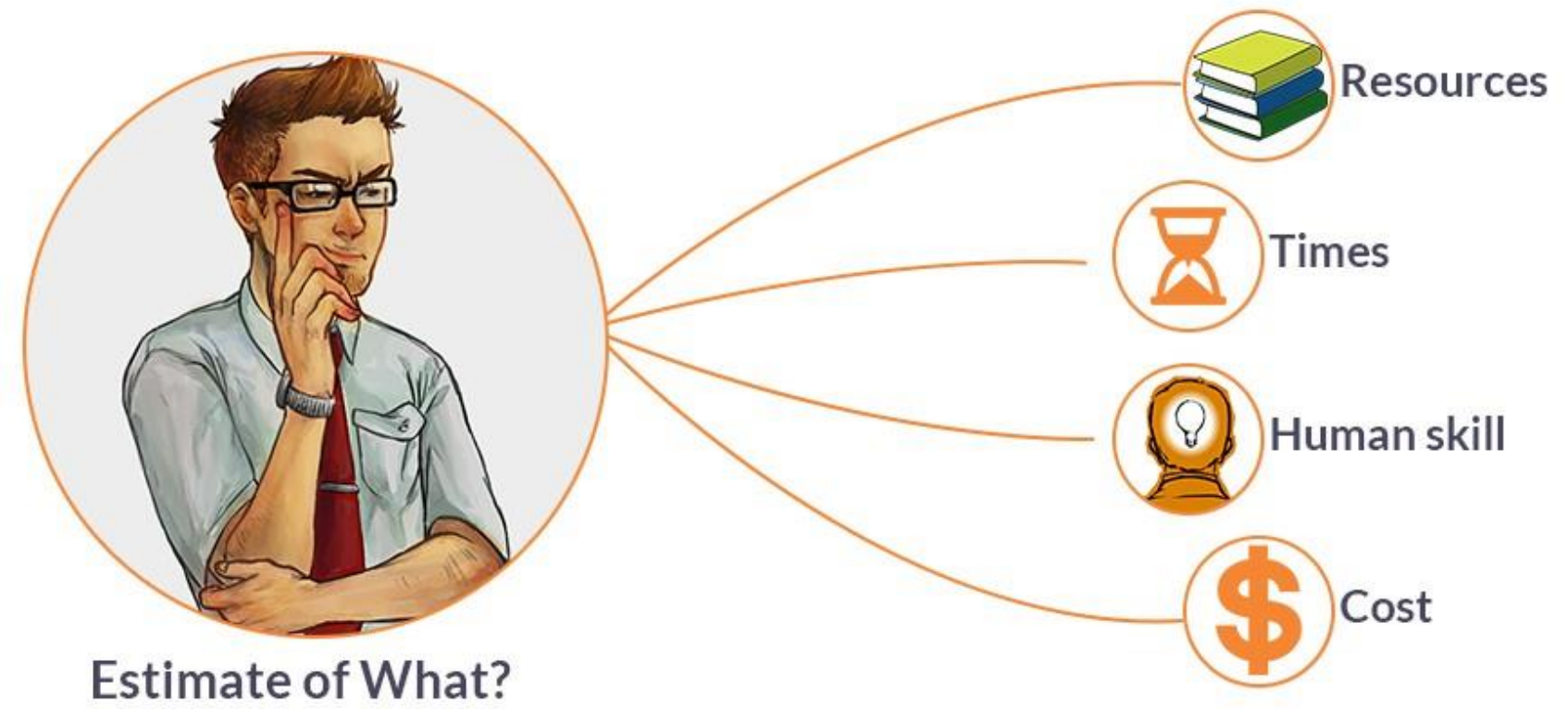
you want to plant a row of flowers. The row is 58.3cm long. The plants should be 6cm apart. How many do you need?

You want to build a house and have 15 lakh. What features would you consider for your house and how?



The Basics for software estimating

- The need for historical data
- Parameters to be estimated
- Measure of work



The Basics for software estimating

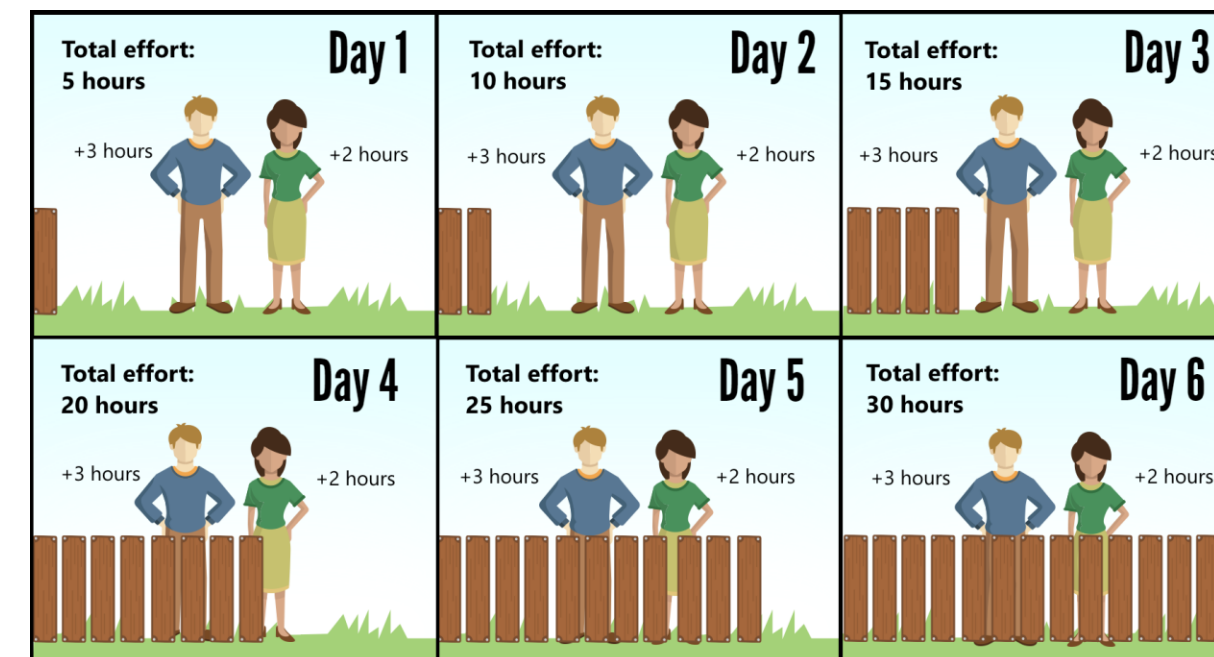
The need for historical data

- Past project info.
- If no past info, external datasets accessed
- International Software Benchmarking Standards Group (ISBSG)

NIFTY 100 for 01-Jan-2003 To 15-Feb-2017						
Date	Open	High	Low	Close	Shares Traded	Turnover (Cr)
1-Jan-03	0	0	0	1000	-	-
2-Jan-03	0	0	0	1008.03	-	-
3-Jan-03	0	0	0	1004.49	-	-
6-Jan-03	0	0	0	999.85	-	-
7-Jan-03	0	0	0	997.81	-	-
8-Jan-03	0	0	0	1005.31	-	-
9-Jan-03	0	0	0	1013.33	-	-
10-Jan-03	0	0	0	998.61	-	-
13-Jan-03	0	0	0	993.25	-	-
14-Jan-03	0	0	0	997.95	-	-
15-Jan-03	0	0	0	1003.67	-	-
16-Jan-03	0	0	0	1006.77	-	-
17-Jan-03	0	0	0	1005.35	-	-
20-Jan-03	0	0	0	996.65	-	-
21-Jan-03	0	0	0	998.93	-	-
22-Jan-03	0	0	0	1002.35	-	-
23-Jan-03	0	0	0	991.66	-	-
24-Jan-03	0	0	0	977.08	-	-
27-Jan-03	0	0	0	959.04	-	-
28-Jan-03	0	0	0	967.5	-	-
29-Jan-03	0	0	0	960.20	-	-

Parameters to be estimated

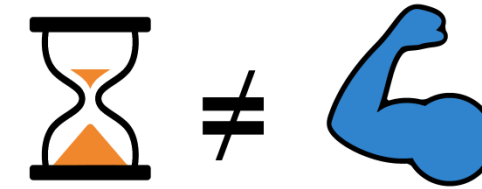
- Effort – work month(wm) or person month(pm)
- Duration – measured in months



The Basics for software estimating

Measure of Work

- Also called as size of the project
- Work = Cost and Time for accomplishing project.
- Time taken = Competence or Experience
- Implementation Time = Varies based on CASE tools used
- Estimate of Project size – Independent
- Effort and Time – Dependent variable
- Project Size – Problem complexity in terms of effort and time needed to develop product.



Effort vs. Duration



The Basics for software estimating

Measure Size Metric

- SLOC – Source Lines of Code - Simpler
- FP – Function Point – Improved version of SLOC

SLOC Shortcomings

- No precise definition
- Difficult to estimate at start of a project
- Only a code measure
- Programmer dependent
- Does not consider project complexity

```
C qlogicpti.h x
44  /*
45  #define QLOGICPTI_REQ_QUEUE_LEN 255 /* must be power of two - 1 */
46  #define QLOGICPTI_MAX_SG(q1)      (4 + (((q1) > 0) ? 7*((q1) - 1) : 0))
47
48  /* mailbox command complete status codes */
49  #define MBOX_COMMAND_COMPLETE      0x4000
50  #define INVALID_COMMAND           0x4001
51  #define HOST_INTERFACE_ERROR      0x4002
52  #define TEST_FAILED                0x4003
53  #define COMMAND_ERROR             0x4005
54  #define COMMAND_PARAM_ERROR       0x4006
55
56  /* async event status codes */
57  #define ASYNC_SCSI_BUS_RESET       0x8001
58  #define SYSTEM_ERROR              0x8002
59  #define REQUEST_TRANSFER_ERROR     0x8003
60  #define RESPONSE_TRANSFER_ERROR    0x8004
61  #define REQUEST_QUEUE_WAKEUP      0x8005
62  #define EXECUTION_TIMEOUT_RESET    0x8006
63
64  /* Am I fucking pedantic or what? */
65  struct Entry_header {
66  #ifdef __BIG_ENDIAN
67      u8  entry_cnt;
68      u8  entry_type;
69      u8  flags;
70      u8  sys_def_1;
71  #else /* __LITTLE_ENDIAN */
72      u8  entry_type;
73      u8  entry_cnt;
74      u8  sys_def_1;
75      u8  flags;
76  #endif
77  };
78
```



THANK YOU