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ملخص

نهتم فى هذه الرسالة بدراسة مسألة التماثل المستقر. هذه المسألة تتكون من مجموعة من المشاركين كل منهم له سعة تمثل الحد الاعلى لعدد المشاركين الذى يمكن ان يسجل معهم. ايضا كل مشارك يقدم قائمة مرتبة برغباته تحتوى على مجموعة جزئية من مجموعة المشاركين . هذا النوع من المسائل واسعة الانتشار فى الحياة. من الأمثلة على ذلك توزيع الطلاب على الكليات أو توزيع الاطباء على المستشفيات و هكذا.

فى هذه الرسالة كان اهتمامنا اكثر بدراسة مسائل التماثل المستقر ذات الجانبين. هذا النوع من المسائل يتكون من مجموعتين منفصلتين من المتشاركين كل مشترك له سعة تمثل الحد الاعلى لعدد المشاركين الذين يمكن ان يسجل معهم. ايضا كل مشترك يقدم قائمة من الرغبات يقوم فيها بترتيب مجموعة جزئية من المشاركين فى المجموعة الاخرى التى لا ينتمى اليها. فى هذه الرسالة قدمنا نموذج جديد لحل مسألة توزيع الطلاب على المشاريع.

الشرح المصور له فوائد كثيرة، من خلال الرسالة المصورة يمكننا استنتاج الكثير من المعانى التى لا يمكن فهمها سريعا من رسالة مكتوبة، و لقوة الصور قدمنا برنامج يقوم بعرض مرئى لطريقة عمل النموذج الجديد الخاص بتوزيع الطلاب على المشاريع و ذلك للمساعدة فى فهم طريقة عمل هذا النموذج.

فى الفصل الاول، قدمنا شرح بسيط لاهم مبادئ و مفاهيم العرض المرئى ايضا قدمنا بعض الطرق المختلفة للعرض المرئى للخوارزميات و استعرضنا بعض الامثلة.

فى الفصل الثانى، عرضنا مقدمة مختصرة عن المفاهيم الاساسية لمشاكل التماثل و استعرضنا بعض هذه المسائل المهمة. فى نفس الفصل عرضنا بعض الامثلة على هذه المسائل